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Congrès de l'ACP CAP Congress

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**THE 2016 CAP CONGRESS
PARTNERS WELCOME YOU TO
OTTAWA**

**LES PARTENAIRES DU CONGRÈS
2016 DE L'ACP VOUS SOUHAITENT
LA BIENVENUE À OTTAWA**



uOttawa

The congress organizers thank each of the sponsors and partners for their generous contributions. At the time of printing these are:

Les organisateurs du congrès remercient tous les commanditaires et partenaires de leurs généreuses contributions. Au moment d'aller sous presse, ce sont :

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Département de physique / Department of Physics et / and Faculté des Sciences / Faculty of Science

WILEY





TABLE OF CONTENTS / TABLE DES MATIÈRES

2016 CAP Congress

Congrès de l'ACP 2016

IFC	Welcome to Delegates; List of Sponsors / <i>Bienvenue aux délégués; liste des com- manditaires</i>	9	Herzberg Public Memorial Lecture / <i>Conférence publique Herzberg</i>
ii	Registration, Exhibitors, CAP Office / <i>Inscription, Exposants, Bureau de l'ACP</i>	11	Plenary Talks / Conférences plénières
iii - viii	Travel Information and Maps / <i>Comment se rendre au Congrès et Cartes</i>	14	Special Sessions / <i>Sessions spéciales</i>
ix - x	Internet Access and Where to Eat / <i>Accès internet et Où manger</i>	15	16th Annual Physics Teachers' Day / <i>16^e journée annuelle des enseignant(e)s</i>
2	Technical Program Committee and Local Organizing Committee / <i>Comité du programme technique et Comité organisateur local</i>	16	Special Sessions (continued) / <i>Sessions spéciales (cont.)</i>
3	Notes to Delegates / <i>Notes aux délégués</i> - Abstracts, Name Badges, Registration, Parking / <i>Résumés, Insignes porte-nom, Inscription, Sta- tionnement</i> - Instructions: Oral Presentation, Poster Presenta- tion, Student Competition, abstract upload / <i>In- structions: Présentations orales et d'affiches, compétition étudiantes, téléverser votre affiche</i>	17	Annual General Meeting - Draft Agenda <i>Assemblée générale annuelle - Ordre du jour provisoire</i>
7	Best Student Presentation Competitions / Compétitions pour les meilleures com- munications étudiantes	18	Abbreviation Key / <i>Code des abréviations</i>
8	Special Instructions for Timed Papers / <i>Instructions spéciales pour les présenta- tions chronométrées</i>	19	Congress at a Glance / <i>Sommaire du congrès</i>
		23	Sponsor Ads / <i>Publicité des commanditaires</i>
		24	Detailed Congress Program / <i>Programme détaillé du Congrès</i>
		46	List of contributions - Poster Session / <i>Liste des contributions - Sesion d'affiches</i>
		50	Presenter Index / <i>Index des présentateurs</i>
		53	Sponsor Ads / <i>Publicité des commanditaires</i>
		54	NOTES
		BC	Next Congress / <i>Prochain congrès</i>

Advertising Rates and Specifications (effective-
January 2016) can be found on the PiC website
(www.cap.ca - Publications). / Les tarifs publici-
taires et dimensions (en vigueur dès janvier
2016) se trouvent sur le site internet de La
Physique au Canada (www.cap.ca - Publications)

Notice to Delegates

A copy of the printed program will
be provided to delegates at the
Annual Congress at the Univer-
sity of Ottawa in Ottawa, ON

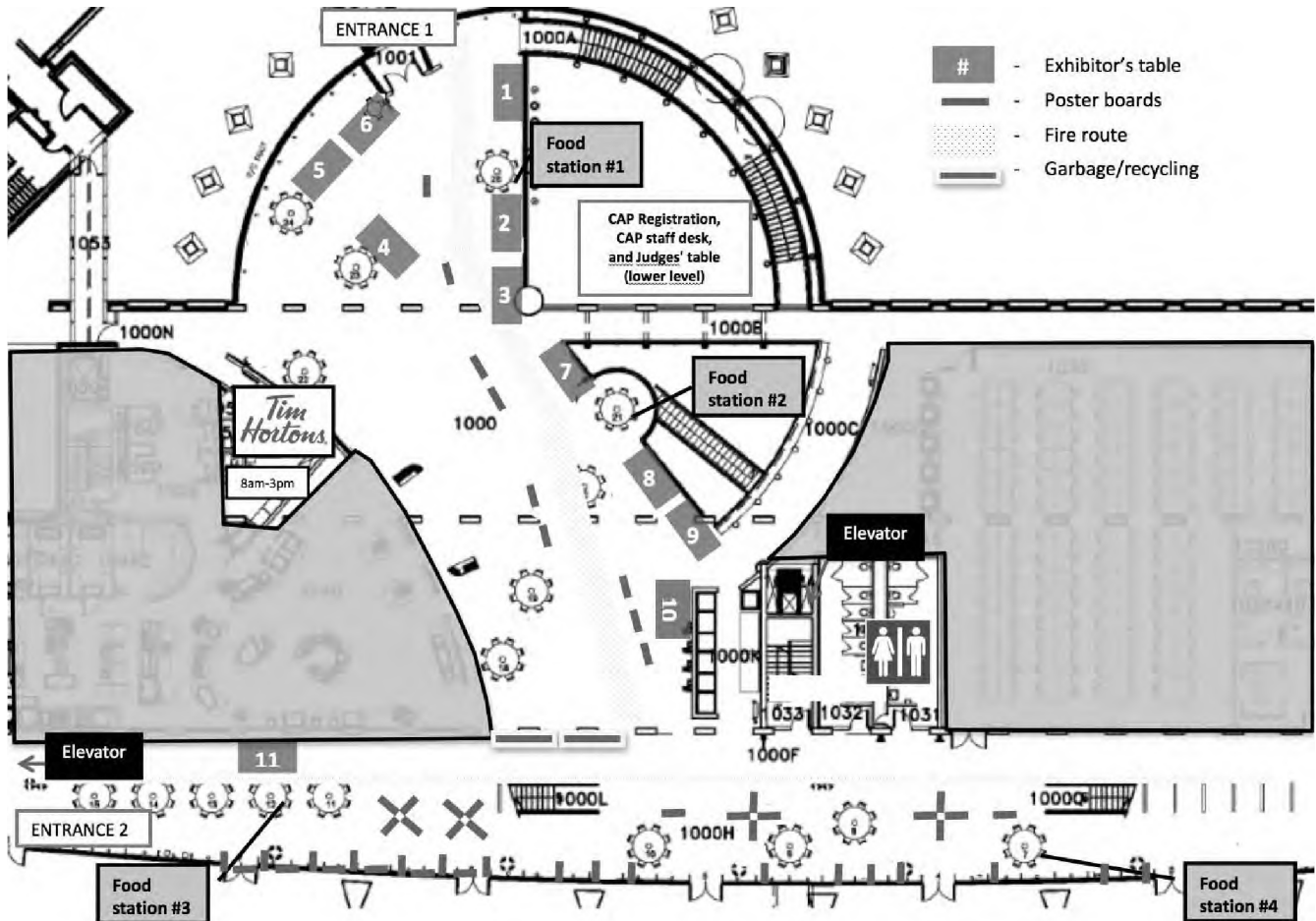
Avis aux délégués

Une copie du programme imprimé
sera donnée aux délégués au
Congrès annuel, à l'Université
d'Ottawa à Ottawa, ON

Front Cover / Couverture

Night view of SITE Building at the University of Ottawa /
Vue de nuit de l'immeuble SITE à l'Université d'Ottawa

Registration, Exhibitors, CAP Office Inscription, Exposants, Bureau de l'ACP



Exhibitor Booths
(Tuesday, Wednesday)
Kiosques des exposants
(mardi, mercredi)

1



SFR MAGNIFYING NANOSCIENCE

2



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5



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6




Gamble Technologies

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8



Vacuum Products Canada
vpcinc.ca

9




Canadian Nuclear Laboratories | Laboratoires Nucléaires Canadiens

10



MASHIONIQUE
Advancing Plasma-Based Technologies
Avancées dans les Technologies Plasmas

11



thePersonal

Travel Information to Congress

Major airlines fly to the Ottawa MacDonald-Cartier International Airport (YOW). Extensive transport information to and from the airport (YOW), including taxi information and car rental agencies, is available at the airport website (yow.ca). Travellers may also reach Ottawa by train (www.viarail.ca) or bus (www.greyhound.ca).

From the Airport towards city centre by car

The airport is about 11 kilometers south of downtown Ottawa. Exit the airport from the arrivals terminal and stay on this road, heading North on Airport Parkway. Continue on the parkway as it turns into Bronson Avenue. Continue on Bronson Avenue and turn right (East) on Laurier Avenue and the city centre.

To University of Ottawa campus by car

Continue East on Laurier Avenue past City Hall and over the Rideau Canal and turn right (South) onto King Edward Avenue. Turn right one block later onto Thomas-More Private (the continuation of Osgoode Street) to access the Brooks Garage, or continue further South and turn left at Mann Avenue to access the Mann Garage (see below).

By Public Transit

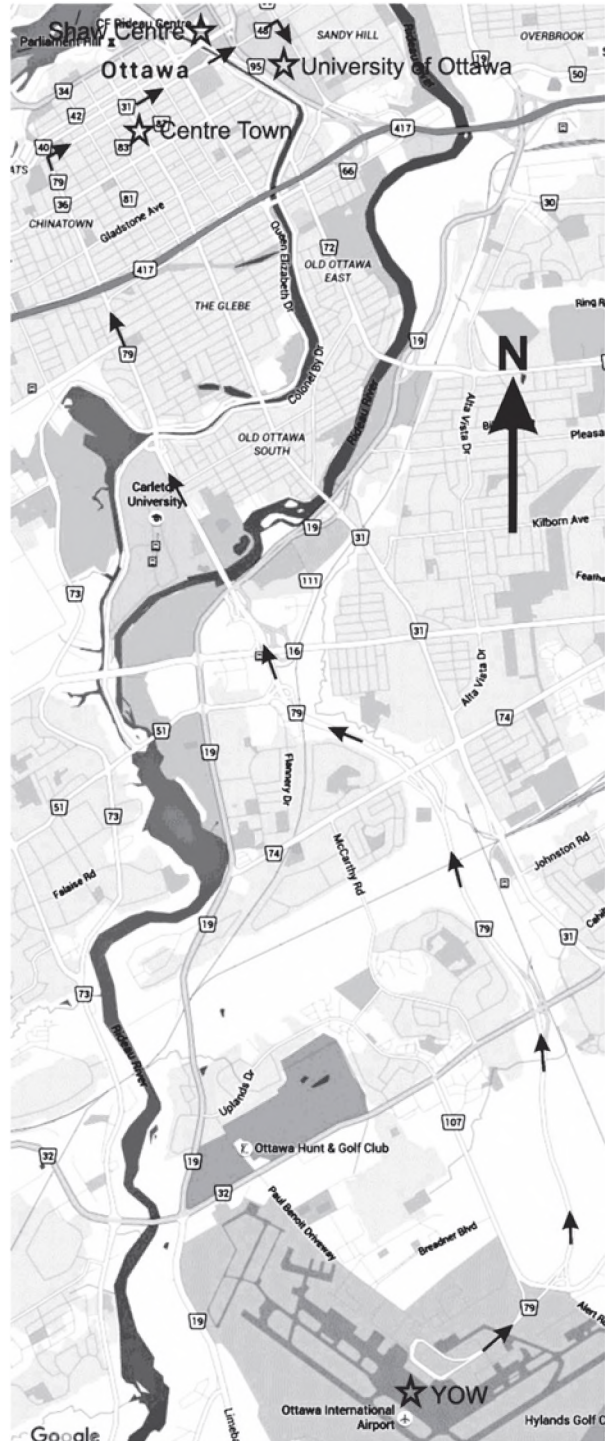
OCTranspo Route 97 departs from pillar 14 outside the level 1 Arrivals area. Two tickets (approx. \$3.60) needed, can be purchased at the Ground Transportation Desk on level 1 of the Arrivals area. This bus route includes stops at the University of Ottawa (uOttawa) and Laurier Avenue, and continues downtown and towards the West of the city.

How to get around in the Ottawa-Gatineau Region

The National Capital Region is serviced by OCTranspo (www.octranspo1.com or 613-741-4390) and by STO (www.sto.ca or 819-770-3242). Many OCTranspo bus routes go through the university campus. Because of ongoing construction, please visit the transit websites for up-to-date information.

Parking at the University of Ottawa

Congress participants may park their car at the Brooks Garage parking, 100 Thomas-More. Or at the Mann Garage, 33 Mann Avenue. Parking rates are \$4.50/hour with a \$16.00 daily maximum. Other campus parking options are available (<http://www.uottawa.ca/parking/parking-services>).



The congress registration and information desk will be located in the lower Foyer of the SITE Building. Hours of operation can be found on page 3.

Comment se rendre au congrès

Plusieurs lignes aériennes vont à l'aéroport international MacDonal-Cartier d'Ottawa (YOW). Le site web de l'aéroport (yow.ca) rassemble toute l'information concernant le transport venant et allant à l'aéroport, incluant taxi et location de voiture. On peut aussi se rendre à Ottawa par train (www.viarail.ca) ou par bus (www.greyhound.ca).

De l'aéroport au centre-ville en voiture

L'aéroport est environ 11 km au sud du centre-ville. Quittez l'aire des arrivées et restez sur cette route, vers le nord et la Promenade de l'Aéroport. Continuez sur cette promenade qui deviendra l'Avenue Bronson. Continuez sur Bronson et tournez à droite (est) sur l'Avenue Laurier et le centre-ville.

Vers le campus de l'université d'Ottawa en voiture

Continuez vers l'est sur Laurier passé l'hôtel de ville et le canal Rideau et tournez à droite (sud) sur l'avenue King Edward. Tournez ensuite à droite sur Thomas-More Privée (la continuation de la rue Osgoode) pour accéder au garage Brooks, ou continuez un peu plus au sud et tournez à gauche (est) sur l'avenue Mann pour accéder au garage Mann (voir plus bas).

Par transport public

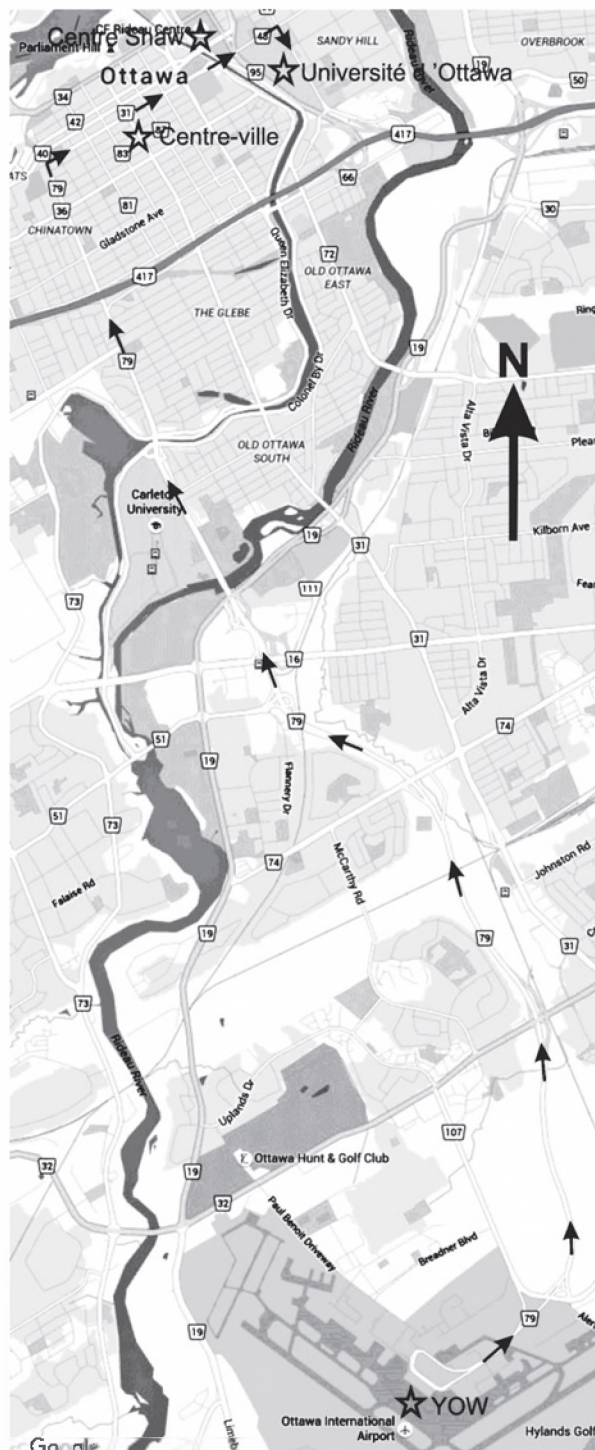
Le circuit 97 d'OCtranspo part du pillier 14 hors de l'aire des arrivées. Deux billets requis (environ 3.60\$), en vente au comptoir du transport au sol, niveau 1 de l'Aire des arrivées. Ce circuit d'autobus comprend des arrêts à l'université d'Ottawa (uOttawa) et Avenue Laurier, et continue vers le centre-ville et l'ouest de la ville.

Se déplacer à Ottawa-Gatineau

La région de la capitale nationale est desservie par OCtranspo en Ontario (www.octranspo1.com ou 613-741-4390) et par STO au Québec (www.sto.ca ou 819-770-3242, Gatineau). Plusieurs circuits d'OCtranspo traversent le campus de l'université. Étant donné les travaux en cours, svp consulter les sites web des deux services pour l'information la plus exacte.

Stationnement à l'université d'Ottawa

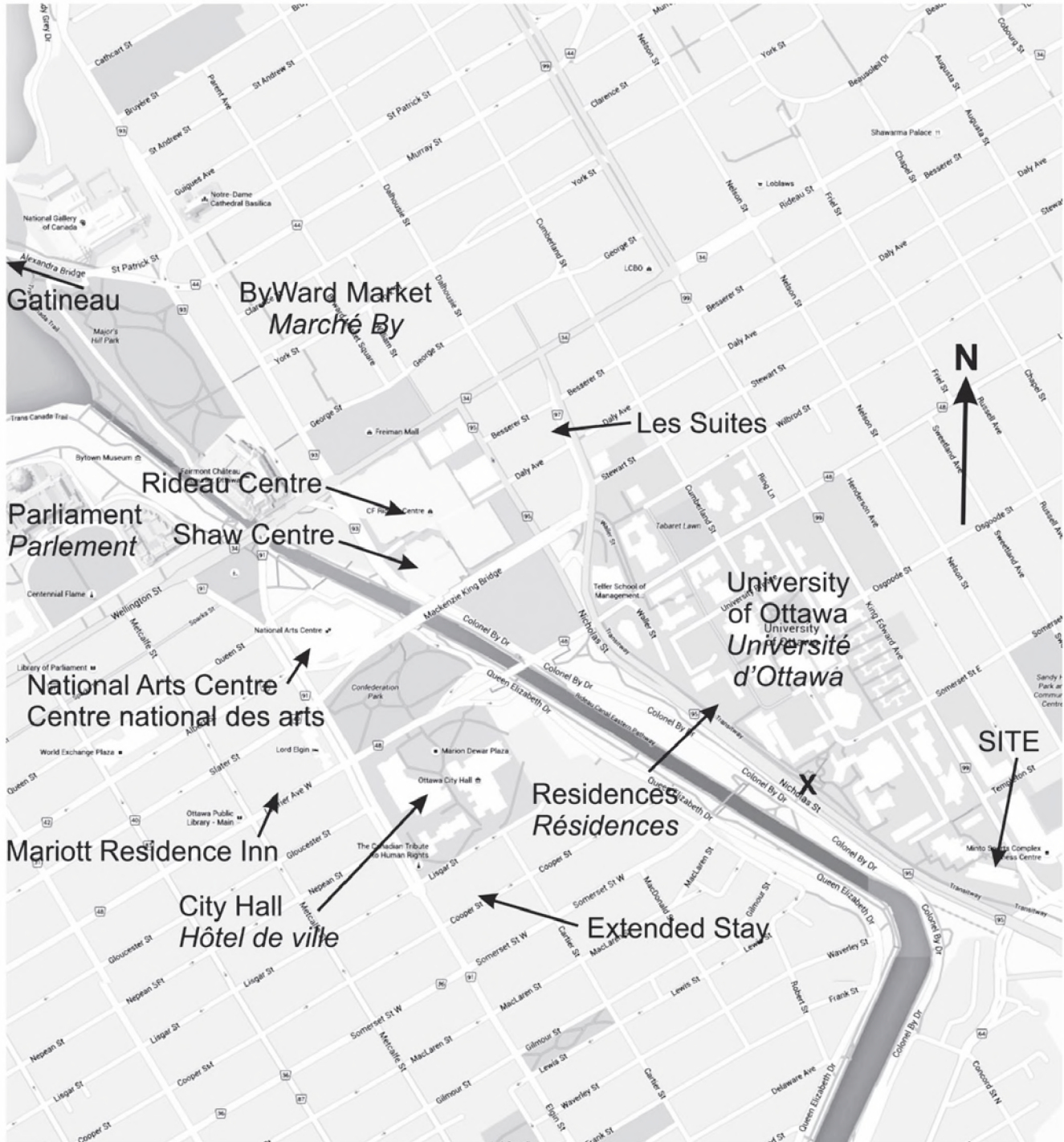
Les participants au congrès pourront stationner leur voiture au garage Brooks, 100 Thomas-More. Ou au garage Mann, 33 Avenue Mann. Les taux sont de 4.50\$/heure avec maximum quotidien de 16.00\$. D'autres options pour stationner sur le campus existent (<http://www.uottawa.ca/parking/parking-services>).



Les bureaux d'inscription et d'information se trouvent dans le foyer inférieur de l'immeuble du SITE. Voir page 5 pour les heures d'ouverture.

Important Congress Locations in Ottawa / Endroits importants du Congrès à Ottawa

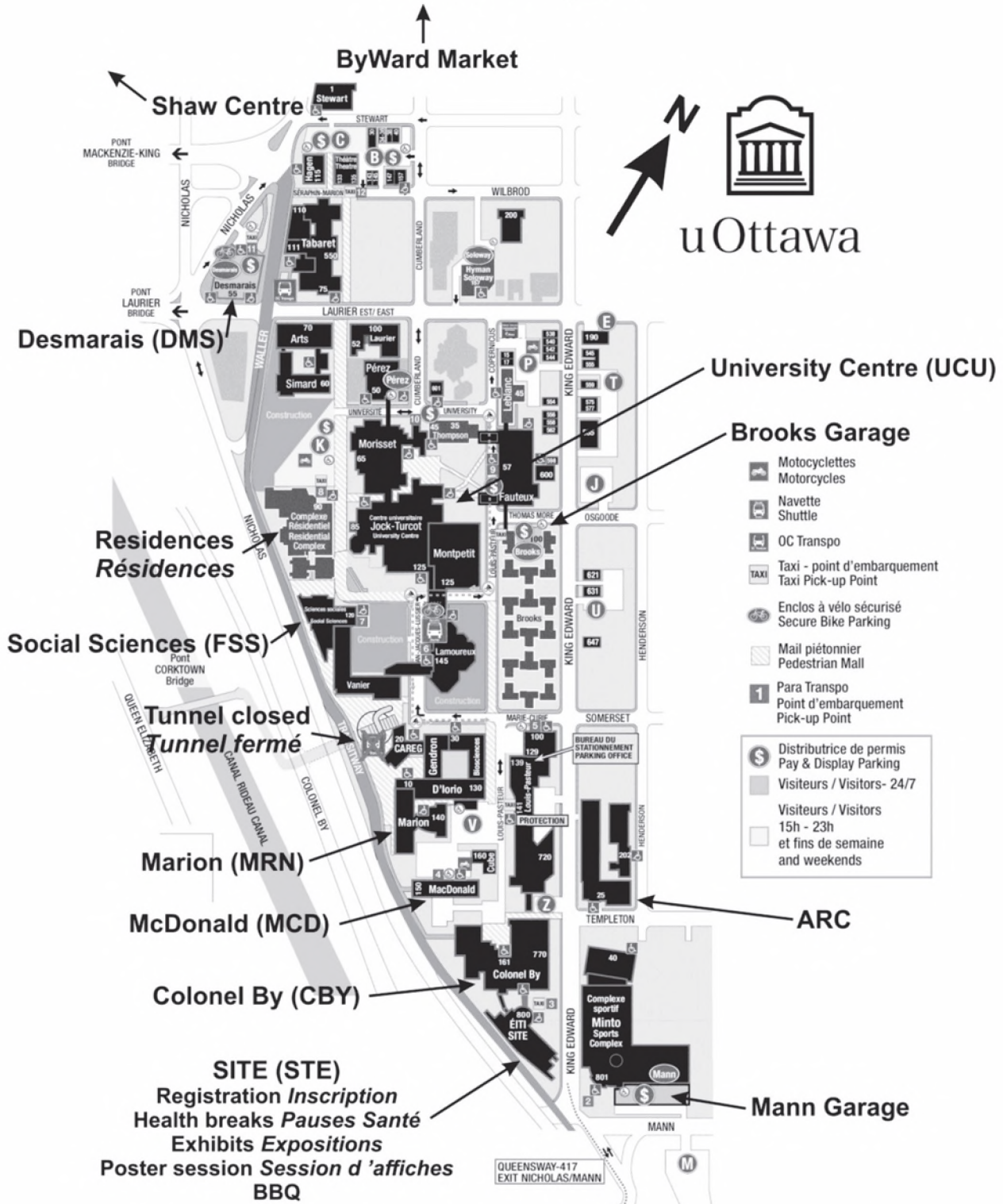
Around University of Ottawa
Autour de l'université d'Ottawa



N.B. Due to construction, access to Colonel By and Queen Elizabeth via pedestrian bridge is closed.
N. B. Du aux travaux, l'accès à Colonel By et Queen Elizabeth par pont piétonnier est fermé.

UNIVERSITY OF OTTAWA / UNIVERSITÉ D'OTTAWA

Campus Map Carte du campus

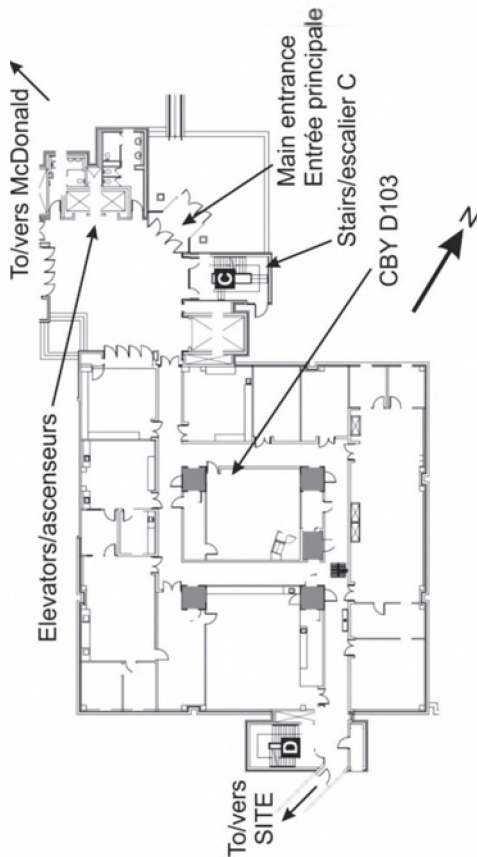


N.B. Due to construction, access to Colonel By and Queen Elizabeth via pedestrian bridge is closed.
N. B. Dû aux travaux, l'accès à Colonel By et Queen Elizabeth par pont piétonnier est fermé.

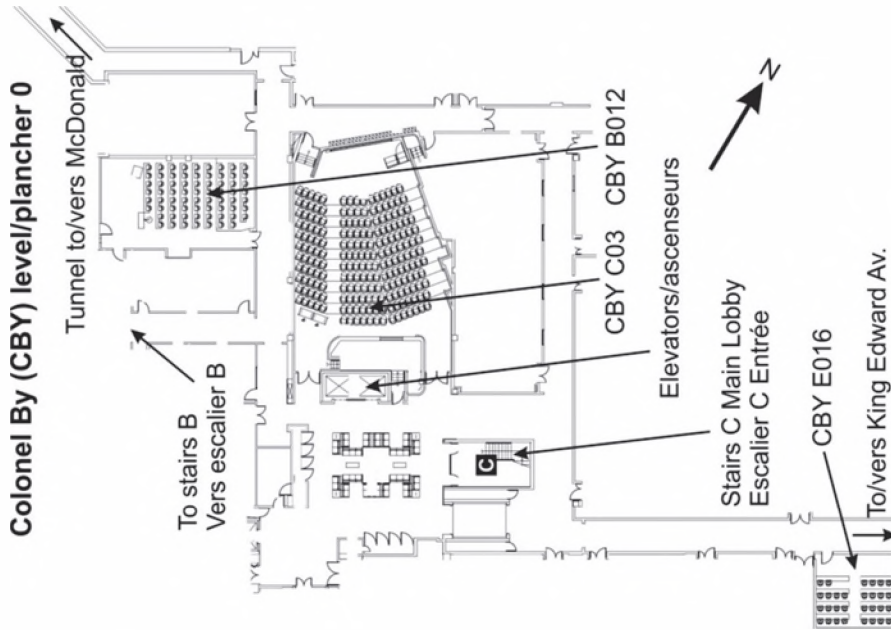
COLONEL BY (CBY)

Congress Venue Floor Plans Plans des locaux du congrès

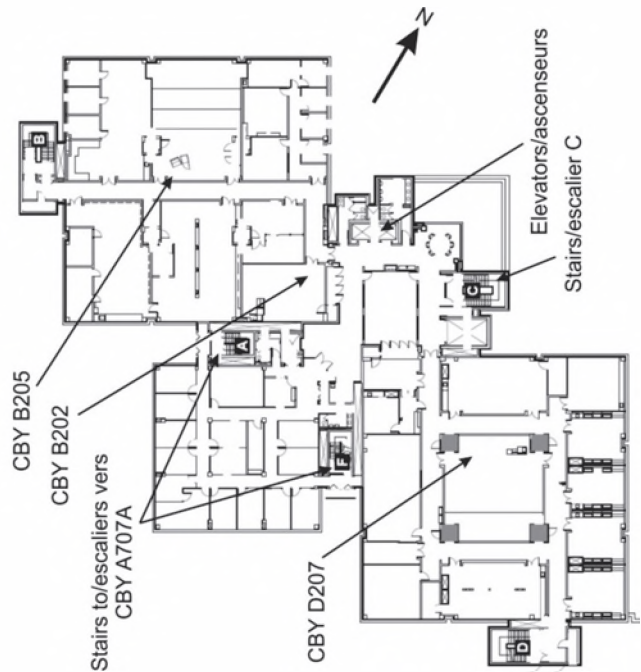
Colonel By (CBY) level/plancher 1



Colonel By (CBY) level/plancher 0

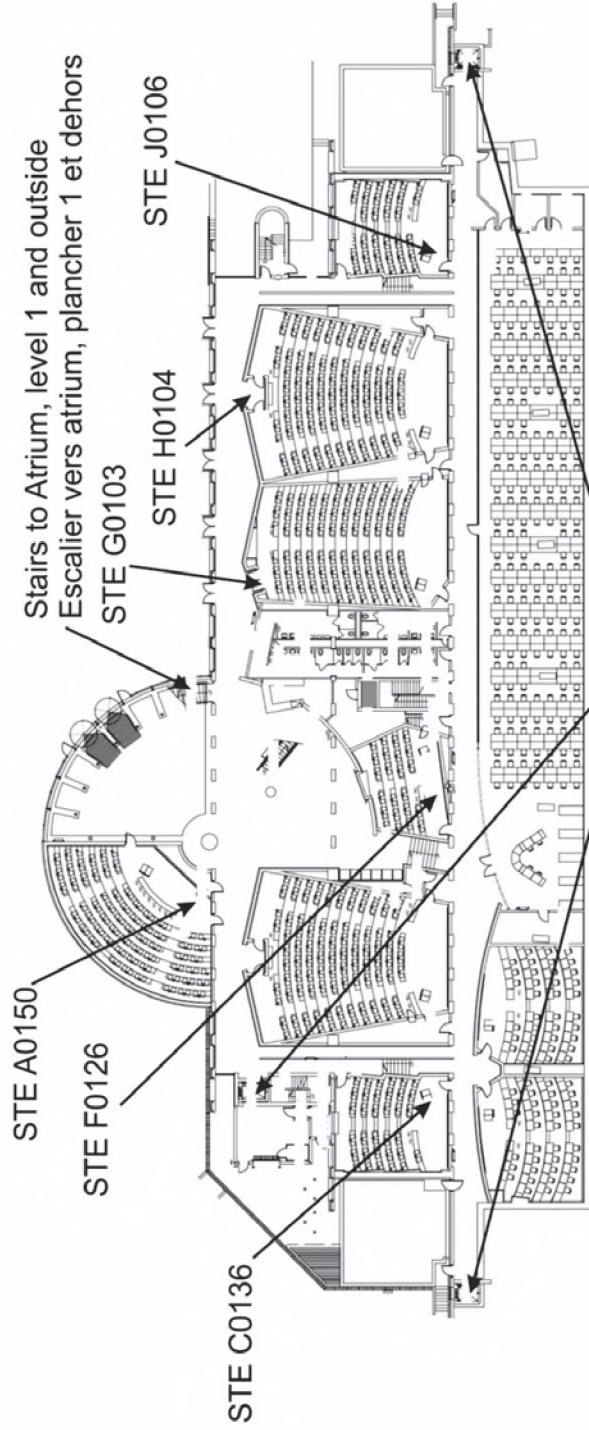


Colonel By (CBY) level/plancher 2

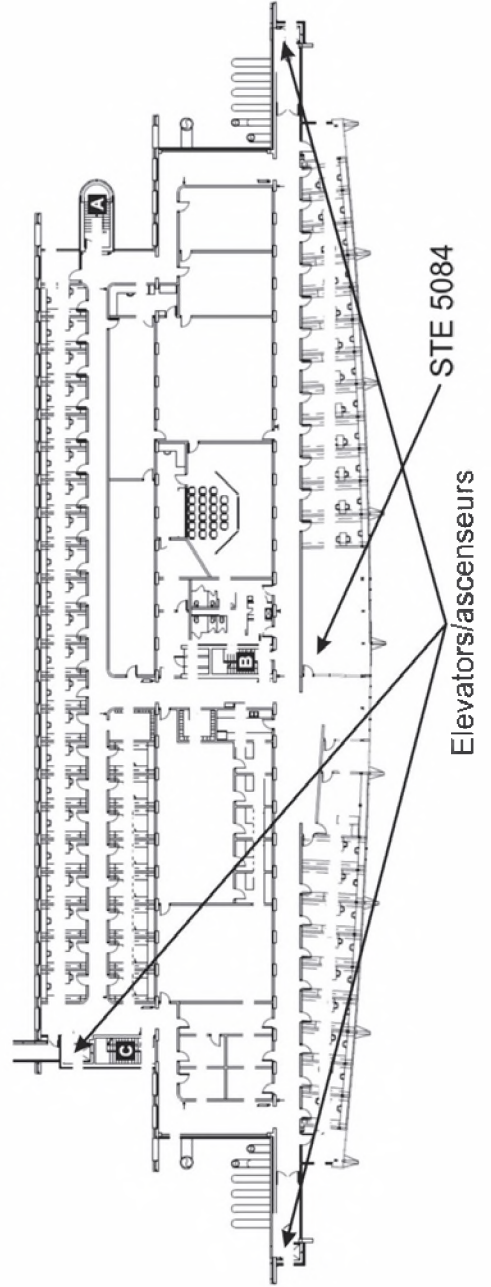


SITE (STE)

SITE (STE) level/plancher 0



SITE (STE) level/plancher 5



Internet Access Accès Internet

Internet access is possible at the University of Ottawa via the secured “Eduroam” network, if you have obtained the required authorization from your institution. Otherwise, internet access is provided through the non-secured network “guOttawa” with no username nor password required.

L'accès à internet par le réseau sécurisé « Eduroam » est disponible à l'Université d'Ottawa, si votre institution vous l'autorise. Autrement, l'accès à internet peut se faire par le réseau « guOttawa », ce réseau non-sécurisé est accessible sans nom d'utilisateur ni mot de passe.

Where to eat Où manger

Nearby places for lunch, suggested by the local organising committee. This list is NOT exhaustive, other suggestions may be found through Web resources. See map on pg. x for locations.

Endroits proches du campus pour manger le midi, suggérés par le comité organisateur du Congrès. La liste est loin d'être complète, une recherche sur le web en découvrira d'autres. Voir la carte à la p. x.

Without beverage *Sans boisson*: (\$) : < 15\$; (\$\$) : > 15\$

- 1 Tim Hortons** (\$) SITE (STE) level 1. *SITE (STE) Plancher 1. Light lunches etc. Goûter léger etc.*
- 2 24/7 Dining Hall** (\$) University Centre (UCU) cafeteria. *Cafétéria au centre universitaire (UCU).*
- 3 PIVIK** (\$) University Centre (UCU) convenience store. *Dépanneur au centre universitaire (UCU).*
- 4 Bac à frites** (\$) Near Simard building (SMD). Burgers etc. *Près du pavillon Simard (SMD). Burgers etc.*
- 5 Relish Food Truck** (\$) Near Lamoureux building (LMX). Soup, sandwiches. *Près du pavillon Lamoureux (LMX). Soupe, sandwichs.*
- 6 Bac+** (\$) Near Fauteux building (FTX). Asian food. *Près du pavillon Fauteux (FTX). Plats asiatique.*
- 7 Première moisson** (\$) Social science building (FSS). Bakery, sandwiches etc. *Pavillon des sciences sociales (FSS). Sandwichs, desserts etc.*
- 8 Second Cup** (\$) In Morriset building (MRT). sandwiches, etc. *Pavillon Morriset (MRT). Sandwichs, etc.*
- 9 Starbucks** (\$) Desmarais building (DMS). Sandwiches etc. *Pavillon Desmarais (DMS). Sandwichs etc.*
- 10 Café Nostalgica** (\$) On campus (GSD), Graduate Student Association. Good food, drinks, patio. *Au campus (GSD), association des étudiant(e)s supérieur(e)s. Bonne bouffe, boissons, terrasse.*
- 11 The Draft Pub** (\$) Minto Sportsplex. Decent food, drinks. *Complexe Minto. Bonne bouffe et boissons.*
- 12 Sandy Hill Lounge and Grill** (\$) 321 Somerset. Good fare, cool atmosphere. *Bonne bouffe, burgers.*
- 13 Father and Sons** (\$) 112 Osgoode. Burgers and sandwiches, patio. *Burgers et sandwichs, terrasse.*
- 14 Perfection Satisfaction Promise** 167 Laurier. (\$) Vegetarian. *Végétarien.*
- 15 Royal Oak** (\$\$) 161 Laurier. Classic pub, patio. *Pub classique, terrasse.*
- 16 Subway, Pizza etc.** (\$) Laurier St, east of King Edward. *Laurier à l'est de King Edward.*
- 17 Freshii, Subway** 50 Laurier. Healthy food! *Menu santé!*
- 18 Food Court** (\$) Rideau Centre. Numerous places. *Centre Rideau. Nombreux choix.*
- 19 Bazille** (\$\$) Rideau Centre, Nordstrom. Excellent fries. *Frites décadentes!*
- 20 The Green Door** (\$\$) 198 Main. 20 min walk south of Congress Site. Vegetarian, good rating. *À 20 minutes à pied au sud du congrès. Végétarien, bien coté.*

You may also explore numerous options at the ByWard Market, 15-20 minute walk, north from the Congress site.

Le marché By offre une grande gamme de restaurants et bars. À 20 minutes à pied au nord du congrès.

Location of places to eat
Location des endroits où manger



See page ix for the list of places to eat
Voir page ix pour la liste des endroits où manger

The 71st CAP Annual Congress 71^e Congrès annuel de l'ACP

Information / Programme



(See page 18 for the Session Codes /
Voir les indicatifs des sessions à la page 18)

2016 CAP Congress / Congrès de l'ACP 2016

Technical Program Committee / Comité du programme technique

Chair / Président	A. Sarty	adam.sarty@smu.ca
Atmospheric & Space Physics / physique atmosphérique et de l'espace	R. Marchand	rmarchan@ualberta.ca
Atomic, Molecular and Optical Physics, Canada / physique atomique, moléculaire et photonique, Canada	M. Reid	mreid@unbc.ca
Condensed Matter and Materials Physics / physique de la matière condensée et des matériaux	G. Fanchini	gfanchin@uwo.ca
History of Physics / histoire de la physique	L. Marchildon	louis.marchildon@uqtr.ca
Industrial and Applied Physics / physique industrielle et appliquée	R. Roy	rene.roy@phy.ulaval.ca
Instrumentation and Measurements Physics / physique des instruments et mesures	K. Michaelian	kirk.michaelian@canada.ca
Medical and Biological Physics / physique médicale et biologique	M. Martin	m.martin@uwinnipeg.ca
Nuclear Physics / physique nucléaire	R. Kruecken	reiner.kruecken@triumf.ca
Particle Physics / physique des particules	C. Kraus	tine@snolab.ca
Physics Education / enseignement de la physique	M. Williams	mwilli04@uoguelph.ca
Plasma Physics / physique des plasmas	L. Ramunno	lora.ramunno@uottawa.ca
Surface Science / science des surfaces	S. Patitsas	steve.patitsas@lakeheadu.ca
Theoretical Physics / physique théorique	S. Barkanova	svetlana.barkanova@acadiu.ca
Women in Physics / Femmes en physique	S. Ghose	sghose@wlu.ca
Science Policy / Politique scientifique	K. Poduska	kris@mun.ca
Treasurer / Trésorier	D. Lockwood	david.lockwood@nrc-cnrc.gc.ca

Local Organizing Committee / Comité organisateur local

Co-Chairs / Présidents conjoints	B. Joós / L. Chen
Treasurer / Trésorier	K. Dolgaleva
Teachers' Workshop / Ateliers des enseignants	J. Lundeen / C. Gigault / A. Czajkowski
Exhibitors / Exposants	V. Tabard-Cossa
Signage / Affichage	J.M. Ménard
Welcome BBQ Organizers / Coordonnateurs de BBQ	P. Hawrylak
Herzberg Lecture Coordinator / Coordonnateur de la conférence Herzberg	M. Rogers
Recognition Gala Coordinator / Coordonnateur du Gala de reconnaissance	P. Hawrylak
Poster Session Coordinator / Coordonnateur(rice) de la session d'affiches	X. Bao
Room Coordinator / Coordonnateur de salle de conférence	Y. Braik
Catering / Coordonnateur(rice) pour traiteur	R. Bhardwaj
Housing Coordinator / Coordonnateur de l'hébergement	B. Joós / L. Chen
Volunteer Coordinator / Coordonnatrice des bénévoles	L. Chen
Program and Web Local Information /	S. Desgreniers
Lab Tour Coordinator / Coordonnateur des visites de laboratoires	A. Stolow
Communications/Social Media Coordinator / Coordonnatrice des communications et médias sociaux	A. Luican-Mayer

CAP Office Staff / Personnel de l'ACP

Executive Director / Directrice exécutive	F.M. Ford	cap@uottawa.ca
Program Manager / Chef de programme	D. Legault	capmgr@uottawa.ca
Membership Coordinator / Coordinatrice d'adhésion	C. Étheve-Meek	capmem@uottawa.ca

General Information / Renseignements généraux

Université d'Ottawa / University of Ottawa	Canadian Association of Physicists
Dept. of Physics / Dép. de Physique	Association canadienne des physiciens et physiciennes
Tel./Tél. : (613) 562-5757	555 King Edward Ave., 3 rd Fl., OTTAWA ON K1N 7N5
	Tel./Tél. : (613) 562-5614; cap@uottawa.ca; www.cap.ca

NOTES TO DELEGATES

ABSTRACTS

For this year's congress, the Program Committee has used the Indico software hosted by CERN to handle abstracts and put together the final program. For the printed program, only the basic information needed to get you to a presentation is given. For poster presentations, which are grouped by division and held in one location, the title and presenter are given, while for oral presentations, the title, presenter and scheduled time and room are given. All other information, including all co-authors and full abstracts is found via the Indico website. You can also obtain a list of presenters and authors of all papers on the web. Visit <http://indico.cern.ch/e/CAP2016> to access the different lists.

NAME BADGES

All registered conference participants will be issued a name badge and a copy of the conference program. **Badges must be worn at all congress events** to identify registered participants. One-day registrants will be issued coloured name badges to identify the day of participation. Individuals whom you may ask for assistance will be designated by coloured ribbons as noted below.

Monday:	Orange Badge	Local Organizing Committee:	Lime green ribbon
Tuesday:	Green Badge	Student Volunteers:	Red t-shirts and turquoise ribbon
Wednesday:	Purple Badge	CAP Executive:	Green ribbon
Thursday:	Blue Badge	Student Competition Judges:	Red ribbon
Friday:	Red Badge	Exhibitors:	Purple ribbon
HS Teachers Workshop (Tues.): Yellow Badge			

REGISTRATION

The congress registration and information desk will be located in the Atrium of the SITE Building and will be open as follows:

Sunday, June 12	11h30 - 13h30
Monday, June 13	08h00 - 17h30
Tuesday, June 14	08h00 - 17h30
Wednesday, June 15	08h00 - 16h30
Thursday, June 16	08h00 - 13h30

PARKING

Congress participants may park their car at the Brooks Garage parking, 100 Thomas-More. Or at the Mann Garage, 33 Mann Avenue. Parking rates are 4.50\$/hour with a 16.00\$ daily maximum. Other campus parking options are available (<http://www.uottawa.ca/parking/parking-services>).

E-MAIL ACCESS

Internet access is possible at the University of Ottawa via the secured "Eduroam" network, if you have obtained the required authorization from your institution. Otherwise, internet access may be done through the non-secured network "guOttawa" with no username nor password required.

WHERE TO EAT

See list and map on pages ix-x for nearby lunch spots or on the "Where to eat" page on the Congress website at www.cap.ca/en/congress/2016.

EXHIBITORS / SPONSORS

(see lists on inside front cover and page ii)

ORAL PRESENTATION INSTRUCTIONS

All technical session rooms are equipped with overhead projectors, video projector, manual and electric screens, internet access and a Windows XP computer. Technical assistance will be available either through room monitors, roving technical assistants or at the Registration desk. Presenters are asked to put their talks into PDF or PowerPoint format and upload them via the congress program web site at least a day prior to the start of the session (instructions below). They could also bring a PDF backup on a USB key to be downloaded onto the computer 30 minutes prior to the start of the session. Presenters are strongly encouraged not to use their own computers. Those who do use their own computers risk having their talk shortened if technical difficulties arise, as we need to adhere to the published schedule. Note that for MAC computers, presenters need to bring their own adaptor. Since talks must be kept to the schedule, you are encouraged to arrive for your session at least 15 minutes early or test the presentation in advance. Assistance will be available through a student volunteer in the room.

POSTER PRESENTATION INSTRUCTIONS

The CAP poster session will be held on Tuesday, June 14, from 19h00 to 22h00 in the Atrium of the SITE building at the University of Ottawa.

Posters can be set up starting at 08h00, but no later than 13h00 on Tuesday, June 14, to be considered for the Student Competition. Posters should have a maximum size of 4' high x 4' wide. Poster boards will be numbered and presenters will be issued with board numbers in advance. Presenters will be required to remove their posters at the latest on Tuesday, June 14, before 10:00 p.m.

The poster session features a light snack and a bar service. All conference attendees who indicated they are attending the Poster Session will receive one drink ticket which may be redeemed for one beer, one glass of wine or a non-alcoholic beverage. A cash bar will also be available.

STUDENT COMPETITION INSTRUCTIONS

ORAL STUDENT COMPETITORS

All oral competition entries will be presented and judged initially in the parallel technical sessions as scheduled from 10h30 Monday through 14h45 Wednesday. The list of the winners of the divisional oral competitions, together with the list of the 8 finalists for the Thursday afternoon CAP Best Student Oral Presentation Competition, will be posted by the end of the day Wednesday, June 15, at the CAP desk in the registration area and on the Congress website (<http://www.cap.ca/en/congress/2016>).

The winners of the divisional competitions and the eight oral finalists will be formally recognized and presented with their award confirmation letter at the Recognition Reception which takes place Thursday, June 16 at the Shaw Centre. All winners must present themselves at the CAP desk Thursday between 8h30 and 17h15 to pick up their complimentary ticket (note policy statement below).

POSTER STUDENT COMPETITORS

Judging of the posters (no students present) will take place in the afternoon of Tuesday, June 14. Posters in competition must be set up no later than 13h00 that day to be considered for the competition. The judges will determine the semi-finalists from each division between 13h45 and 17h30.

Between 18h00 and 19h00, the judges will determine the six finalists in the CAP poster competition, each of whom will be visited that evening (starting at 19h00) by the full judging panel for oral interviews. All poster semi-finalists MUST be at their posters on Tuesday evening between 19h00 and 21h00 as they may be visited by a judge for the determination of division prizes.

The finalists of all divisional competitions, and the finalists for the CAP overall poster competition, will each receive a complimentary ticket to the Congress Recognition Reception on Thursday evening at the Shaw Centre, where the winners will be announced.

POLICY STATEMENT ON PRIZE WINNER TICKETS

Those students who have already purchased a reception ticket can either give the extra ticket to a friend or sell the extra ticket to a delegate on the waiting list (who have also been asked to be at the registration desk at that time to see if tickets are available for purchase). Since the reception tickets are pre-purchased by the CAP, should a winner not present themselves before 17h15 on June 16 to claim their reception ticket, it will be returned to the CAP's inventory of tickets available for sale to delegates, with no compensation owed to the student.

TO UPLOAD YOUR PRESENTATION TO THE CAP CONGRESS INDICO WEBSITE

Go to <http://indico.cern.ch/e/CAP2016>.

Log in to your account.

Select "My contributions" under the "My Conference" link on the left.

Once in the "My contributions" area, click on the title of a contribution.

To submit material, click on the Pencil icon beside Presentation Materials. A dialog box will open.

Click "Upload files", and follow the instructions.

Your file will now appear in the contribution details and will be accessible through the session timetable.

NOTE: Any presenter who does not want their presentation to be publicly available should bring it to Congress on a memory stick and NOT upload it to the Indico site.

NOTES AUX DÉLÉGUÉS

RÉSUMÉS

Pour le congrès de cette année, le comité de programme s'est servi du logiciel Indico hébergé par CERN pour traiter les résumés et assembler le programme final. Dans le programme imprimé, seule l'information nécessaire pour vous diriger vers une présentation est donnée. En ce qui concerne les présentations d'affiches, elles sont regroupées par division, ont lieu à un seul endroit et les titres et présentateurs seront fournis. Tandis que pour les présentations orales, on donne le titre, le présentateur ainsi que l'heure prévue et le numéro de la salle. Toute autre information, y compris les co-auteurs et les résumés complets, se trouve sur le site Web Indico. Vous pouvez aussi obtenir une liste des présentateurs et auteurs de toutes les contributions sur le Web. Rendez-vous à <http://indico.cern.ch/e/CAP2016>.

INSIGNES PORTE-NOM

Tous les participants inscrits au congrès recevront un porte-nom et une copie du programme. Cet insigne devra être porté au cours de tous les événements du congrès afin d'identifier les participants inscrits. Des insignes de diverses couleurs seront remis aux titulaires d'un jour pour identifier le jour de participation. Les organisateurs et le personnel seront identifiés par un ruban de couleur.

Lundi :	porte-nom orange	Comité organisateur local :	ruban vert lime
Mardi :	porte-nom vert	Étudiants bénévoles :	ruban turquoise et gaminet rouge
Mercredi :	porte-nom pourpre	Exécutif de l'ACP :	ruban vert
Jeudi :	porte-nom bleu	Juges de la compétition des étudiants :	ruban rouge
Vendredi :	porte-nom rouge	Exposants :	ruban pourpre
Atelier des enseignant(e)s (mardi) :		porte-nom jaune	

INSCRIPTION

Le comptoir des inscriptions et informations du congrès se situe dans dans l'Atrium de l'édifice SITE. Les heures d'ouverture sont :

Dimanche 12 juin	11h30 à 13h30
Lundi 13 juin	08h00 à 17h30
Mardi 14 juin	08h00 à 17h30
Mercredi 15 juin	08h00 à 16h30
Jeudi 16 juin	08h00 à 13h30

STATIONNEMENT

Les participants au congrès pourront stationner leur voiture au garage Brooks, 100 Thomas-More, ou au garage Mann, 33 Avenue Mann. Les taux sont de 4.50\$/heure avec maximum quotidien de 16.00\$. D'autres options pour stationner sur le campus existent (<http://www.uottawa.ca/parking/parking-services>).

ACCÈS INTERNET

L'accès à internet par le réseau sécurisé « Eduroam » est disponible à l'Université d'Ottawa, si votre institution vous l'autorise. Autrement, l'accès à internet peut se faire par le réseau « guOttawa », ce réseau non-sécurisé est accessible sans nom d'utilisateur ni mot de passe.

ENDROITS OÙ MANGER

Voir les endroits où déjeuner pages ix-x, ou sur la page « Où manger » sur le site web du congrès au www.cap.ca/fr/congres/2016.

EXPOSANTS / COMMANDITAIRES

(voir l'intérieur de la page couverture et la page ii)

INSTRUCTIONS POUR LES PRÉSENTATIONS ORALES

Toutes les salles des sessions techniques sont équipées de rétroprojecteurs, d'un projecteur vidéo, d'écrans manuels et électriques, d'accès à l'internet et d'un ordinateur Windows XP. Une assistance technique sera disponible via les interphones, les assistants techniques ou au comptoir des inscriptions et informations. Nous demandons aux orateurs de convertir leur présentation en format PDF ou PowerPoint et de la télécharger sur le site Web du programme du Congrès au moins une journée à l'avance (voir les directives plus bas). Une copie de secours de la présentation en format PDF peut aussi être apportée sur une clé USB et installée sur l'ordinateur 30 minutes avant le début de la session. Nous recommandons fortement aux orateurs de ne pas utiliser leur ordinateur personnel. Ceux qui utiliseront malgré tout leur ordinateur personnel courent le risque de voir leur présentation raccourcie en cas de difficultés techniques afin de maintenir l'horaire strict des sessions parallèles. (Les utilisateurs d'ordinateurs Apple doivent fournir leur propre adaptateur VGA.) En vue de bien respecter l'horaire, nous vous encourageons à arriver au moins 15 minutes à l'avance à votre séance et à tester et chronométrer votre présentation. Vous aurez accès à du soutien technique grâce à un étudiant bénévole dans la salle.

INSTRUCTIONS POUR PRÉSENTATION D'AFFICHE

La séance de présentation des affiches se tiendra le mardi 14 juin de 19h à 22h dans l'Atrium de l'édifice EITE de l'Université d'Ottawa.

L'étalage des affiches pourra se faire dès 8h00 mais au plus tard avant 13h00 le mardi 14 juin pour être considérées pour la compétition étudiante. Les dimensions maximales des affiches sont de 121.92 cm (48 po) de haut x 121.92 cm (48 po) de large. Les placards d'affichage seront numérotés et on vous attribuera à l'avance un numéro de placard. Vous devrez retirer votre affiche au plus tard le mardi 14 juin, 22h00.

La séance des affiches sera agrémentée d'un léger goûter et d'un service de consommation. Tout participant au congrès ayant indiqué vouloir assister à la séance des affiches recevra un billet lui donnant droit à une bière, un verre de vin ou une boisson non alcoolisée. Il y aura aussi un bar payant.

LES MEILLEURES PRÉSENTATIONS ÉTUDIANTES

LES COMPÉTITEURS POUR LA MEILLEURE PRÉSENTATION ORALE ÉTUDIANTE

Tous les exposés des compétiteurs pour la meilleure présentation orale seront d'abord présentés lors d'une séance technique parallèle qui se tiendra, comme prévu, entre 10h30 lundi matin à 14h45 mercredi après-midi. Les gagnants des compétitions divisionnaires de présentations orales ainsi que la sélection des 8 finalistes pour la séance finale de la compétition orale du jeudi après-midi seront annoncés au bureau de l'ACP situé dans le secteur du comptoir d'inscription et sur le site web du congrès (<http://www.cap.ca/fr/congres/2016>) en fin de journée le mercredi 15 juin.

Les gagnants des concours de division et les huit finalistes des compétitions orales seront officiellement présentés et recevront leur lettre de confirmation de prix lors du Gala Reconnaissance qui a lieu le jeudi 16 juin au Centre Shaw. Tous les gagnants doivent se présenter au bureau de l'ACP entre 8h30 et 17h15 le jeudi pour ramasser leur billet gratuit (notez l'énoncé de la politique ci-dessous).

LES COMPÉTITEURS POUR LA MEILLEURE PRÉSENTATION D'AFFICHE ÉTUDIANTE

L'évaluation des affiches par les juges (sans la présence d'étudiants) se tiendra le mardi. Les affiches en compétition doivent être installées avant 13h00 ce jour-là afin d'être admissibles à la compétition. Les juges détermineront les demi-finalistes de chaque division entre 13h45 et 17h30.

Entre 18h00 et 19h00, les juges détermineront les six finalistes du concours d'affiches de l'ACP puis les visiteront à compter de 19h00 pour une entrevue orale. Tous les demi-finalistes DOIVENT se présenter près de leur affiche entre 19h00 et 21h00 le mardi soir car ils pourraient être visités par un juge pour la détermination de prix de division. Chaque finaliste des compétitions de divisions et de la compétition de l'ACP recevra un billet pour le Gala Reconnaissance au Centre Shaw le jeudi soir (voir l'énoncé de la politique ci-dessous) où le classement sera annoncé et les prix seront remis.

ÉNONCÉ DE LA POLITIQUE SUR LES BILLETS DE DES GAGNANTS DE PRIX

Les étudiants qui ont déjà acheté un billet pour le Gala Reconnaissance peuvent soit donner le billet supplémentaire à un ami ou vendre le billet supplémentaire à un délégué sur la liste d'attente (qui ont également été invités à être au bureau d'enregistrement à ce moment-là pour voir si des billets sont disponibles à l'achat). Comme les billets du Gala Reconnaissance sont prépayés par l'ACP, si un gagnant ne se présente pas avant 17h15 le 16 juin pour réclamer son billet, celui-ci sera retourné à l'inventaire de billets disponibles à la vente aux délégués de l'ACP, sans compensation due à l'étudiant.

POUR TÉLÉVERSER VOTRE PRÉSENTATION SUR LE SITE DU PROGRAMME DU CONGRÈS

Rendez-vous sur le site du programme du Congrès au : <http://indico.cern.ch/e/CAP2016>.

Connectez-vous à votre compte.

Cliquez sur « My Contributions » sous le lien « My Conference », sur la gauche.

Une fois dans la fenêtre « My Contributions », cliquez sur le titre d'une présentation.

Pour soumettre un fichier, cliquez sur l'icone crayon à coté de « Presentation Materials ». Une fenêtre de dialogue ouvrira.

Cliquez sur « Upload files », et suivez les instructions.

Votre présentation apparaîtra dans la fenêtre « contribution details » et sera accessible via l'horaire de la session.

NOTE : Tout auteur de présentation qui ne veut pas que son exposé soit disponible au public doit l'apporter au Congrès sur clé USB et NE PAS le téléverser sur le site Indico.

BEST STUDENT PRESENTATION COMPETITIONS COMPÉTITIONS POUR LES MEILLEURES COMMUNICATIONS ÉTUDIANTES

Delegates can look forward to an excellent series of talks and poster presentations at the 2016 congress delivered by participants in the various CAP divisional competitions as well as the CAP best overall competitions. Student competition entrants are identified as such in the congress program (G* for a Graduate student competitor or U* for an undergraduate student competitor). Full details of eligibility and prizes offered to student competitors are available on the CAP website.

Prizes in subject categories are offered by the divisions of Atmospheric and Space Physics (DASP), Atomic, Molecular, and Optical Physics, Canada (DAMOPC), Condensed Matter and Materials Physics (DCMMP), Industrial and Applied Physics (DIAP), Instrumentation and Measurement Physics (DIMP), Physics in Medicine and Biology (DPMB), Nuclear Physics (DNP), Particle Physics (PPD), Plasma Physics (DPP), Surface Science (DSS) and Theoretical Physics (DTP), as well as the Committee to Encourage Women in Physics (CEWIP).

Best overall prizes are awarded by the CAP in both the oral and poster categories.

All oral competition entries will be presented initially in the parallel technical sessions as scheduled from Monday morning through Wednesday afternoon. Poster competition entries will be presented in the Tuesday evening poster session.

The list of the winners of the divisional oral and poster competitions, the list of 6 CAP poster finalists together with the list of the 8 finalists for the Thursday afternoon CAP Best Student Oral Presentation Competition, will be posted by the end of the day Wednesday, June 15, at the CAP desk in the registration area and on the Congress website (<http://www.cap.ca/en/congress/2016>).

The judging of all student competition entries will be carried out by a panel appointed by the Chief Judge upon the recommendation of the CAP subject Division Chairs. Judges will be identified via a distinct red ribbon on their name badge. All entries will be assessed using standardized criteria and weightings, to include: organisation, content, clarity, quality and impact of presentation, and response to questions. There will be a subpanel of eight judges for the CAP oral competition final, selected from the subject divisions represented in the final competition.

The CAP thanks everyone for their participation and wishes good luck to all student competition presenters!

Les délégués participant au congrès 2016 peuvent s'attendre à y trouver d'excellentes présentations orales ainsi qu'une présentation d'affiches de haut calibre tant au niveau des compétitions des diverses divisions qu'au niveau des compétitions globales de l'ACP. Les étudiants participant à la compétition sont identifiés comme tels dans le programme du congrès (G* étudiant diplômé ou U* étudiant de 1er cycle). De plus amples renseignements sur l'admissibilité à la compétition, ainsi que les prix qui y sont offerts se trouvent sur le site Web de l'ACP.

Les prix par sujets sont offerts par les divisions suivantes : physique atmosphérique et de l'espace (DPAE), physique atomique, moléculaire et photonique, Canada (DPAMPC), physique de la matière condensée et matériaux (DPMCM), physique industrielle et appliquée (DPIA), physique des instruments et mesures (DPIM), physique en médecine et biologie (DPMB), physique nucléaire (DPN), physique des particules (PPD), physique des plasmas (DPP), science des surfaces (DSS), physique théorique (DPT), ainsi que par le Comité pour encourager les femmes en physique (CEFEP).

L'ACP offre ses prix globaux aux meilleurs à la fois dans la catégorie orale et des affiches.

Tous les exposés des compétiteurs pour la meilleure présentation orale seront d'abord présentés lors d'une séance technique parallèle qui se tiendra, comme prévu, du lundi matin au mercredi après-midi. La présentation des affiches des participants à la compétition se fera lors de la séance des affiches du mardi soir.

Les gagnants des compétitions divisionnaires de présentations orales et d'affiches, la sélection des 6 finalistes de la compétition d'affiches de l'ACP ainsi que la sélection des 8 finalistes pour la séance finale de la compétition orale du jeudi après-midi seront annoncés au bureau de l'ACP situé dans le secteur du comptoir d'inscription et sur le site web du congrès (<http://www.cap.ca/fr/congres/2016>) en fin de journée le mercredi 15 juin.

L'évaluation de toutes les présentations étudiantes d'effectuera par un jury nommé par le juge en chef sous la recommandation des présidents des divisions de l'ACP. Les membres du jury seront identifiés par un insigne porte-nom orné d'un ruban rouge. Toutes les présentations seront évaluées en fonction de critères standardisés et objectifs comme l'organisation, le contenu, la clarté, la qualité et l'impact de la présentation ainsi que la réponse aux questions. Un sous-jury de huit membres sera formé pour la finale de la compétition orale de l'ACP, les membres seront choisis au sein des divisions représentées à la compétition finale.

L'ACP tient à remercier chaleureusement tous les participants et souhaite bonne chance à tous les étudiants présentant leur réalisation.

CAP CONGRESS 2016
Listeners, Speakers, and Session Chairs

SPECIAL INSTRUCTIONS FOR TIMED PAPERS

In order to ensure that listeners can transfer from one session to another, the oral presentations will be timed. As a courtesy to all conference participants, we would ask that the following simple guidelines be observed. Your cooperation is appreciated.

EVERYONE - Ensure that you are wearing your Congress name badge at ALL times.

LISTENERS

- Please arrive at a lecture room promptly before the next paper is to begin.
- Please leave a session unobtrusively, preferably during or at the end of the question and answer period.

SPEAKERS

- Make your computer arrangements before the start of your session.
- Be ready to start your talk on time.
- Pace your talk to end well before the next talk begins: about 3 minutes for a contributed paper and about 5 minutes for an invited paper.
- Answer questions and comments as efficiently as possible; defer any follow-up discussions to be continued after the session or in a health break.
- Obey your session chair's instructions.

SESSION CHAIRS

- Arrive at the session room no later than 15 minutes before your session begins. Check that all needed projection and auxiliary equipment is present and operational.
- Introduce yourself to the assistant in the room and verify that the session timer is working.
- Check that your speakers and, if applicable, judges and student competitors (marked with * in program), are present and correctly identified before the session starts.
- Start each paper right on time.
- Make sure each speaker stops talking well before the next paper begins.
- Keep the question periods interesting, lively, and productive. Read over the papers in your session beforehand. If necessary, prepare comments and questions.
- Do not let any discussion period get out of hand, either on the speaker's or the questioner's side.
- Under no circumstances may the order of giving the papers differ from that given in the program. If a speaker fails to appear, either recess the session until the start of the next scheduled talk, or introduce an ad-hoc discussion of earlier presentations to fill the time slot.

CONGRÈS DE L'ACP 2016
Auditeurs, conférenciers et présidents de sessions

INSTRUCTIONS SPÉCIALES POUR LES PRÉSENTATIONS CHRONOMÉTRÉES

Pour s'assurer que les auditeurs puissent passer d'une session à une autre, les présentations orales seront chronométrées. Par courtoisie envers l'ensemble des participants, nous vous demandons de suivre les directives suivantes, et nous vous remercions de votre collaboration.

TOUS - Assurez-vous de toujours avoir votre porte-nom du congrès en évidence.

PARTICIPANTS

- Présentez-vous rapidement à la salle, avant que l'exposé suivant ne commence.
- Quittez la salle discrètement, préférablement pendant ou à la fin de la période de questions.

CONFÉRENCIERS

- Faites vos dispositions informatiques avant le début de votre session.
- Soyez à temps pour débiter votre présentation.
- Planifiez votre exposé de manière à terminer bien avant le suivant: environ 3 minutes pour une présentation contributive et 5 minutes pour une présentation invitée.
- Répondez aux questions et commentaires le plus efficacement possible; reportez les discussions plus longues à la fin de la session ou à la pause-santé.
- Respectez les consignes de votre président de session.

PRÉSIDENTS DE SESSION

- Arrivez à la salle au moins 15 minutes avant le début de la session. Assurez-vous du bon fonctionnement des appareils de projection ou de tout autre matériel requis pour les présentations.
- Présentez-vous à l'adjoint(e) de la salle et vérifiez que le chronomètre fonctionne.
- Vérifiez que les conférenciers et, si applicable, les juges et compétiteurs étudiants (indiquée par un * dans le programme), sont présents et correctement identifiés avant le début de la session
- Annoncez à l'heure exacte le début de chaque exposé.
- Assurez-vous que chaque conférencier cesse de parler bien avant que l'exposé suivant ne commence.
- Animez de manière vivante et productive la période de questions. Lisez d'avance les résumés de votre session. Si nécessaire, préparez des commentaires et des questions.
- Ne laissez ni les questions ni les réponses s'éterniser.
- Sous aucune circonstance l'ordre ou le moment des présentations ne doit différer de celui du programme du congrès. Si un conférencier ne se présente pas, interrompez la session jusqu'au début de l'exposé suivant, ou alors amorcez une discussion impromptue des présentations précédentes.

LUNDI 13 JUIN - 19h30

CENTRE SHAW
OTTAWA (ON)**CONFÉRENCE COMMÉMORATIVE PUBLIQUE HERZBERG 2016**

Victoria Kaspi
Département de physique
Université McGill

« Le don cosmique des étoiles à neutrons »

Bien qu'elles soient à des milliers d'années lumières, les étoiles à neutrons peuvent être des balises cosmiques très précises -- un don céleste qui éclaire certains des problèmes les plus intéressants de la science moderne. Nous examinerons ces objets étranges, expliquerons comment les astronomes s'en servent pour étudier les questions allant des origines de l'Univers à la nature même de la matière, et écouterons même la symphonie cosmique qu'ils créent.

NOTICE BIOGRAPHIQUE

Victoria Kaspi est professeure de physique à l'Université McGill où elle est titulaire de la chaire Lorne Trottier en astrophysique et cosmologie, et de la Chaire de recherche du Canada en astrophysique d'observation. Elle dirige en outre l'Institut de l'espace de McGill, nouvellement créé.

Elle se voit décerner un B.Sc. (concentration) en physique de l'Université McGill en 1989, ainsi qu'une maîtrise et un doctorat en physique de l'Université Princeton, respectivement en 1991 et 1993. De 1994 à 1996, elle est boursière de recherches postdoctorales Hubble au Jet Propulsion Laboratory et au California Institute of Technology. Elle est professeure adjoint de physique au Massachusetts Institute of Technology de 1997 à 2000 et entre au Département de physique de McGill en 2000.

La prof. Kaspi emploie les techniques de radioastronomie et d'astronomie en rayons X dans l'étude des étoiles à neutrons à rotation rapide et à fort rayonnement électromagnétique. Elle réalisera d'importants travaux ayant trait au pulsar radio et aux magnétars. Elle contribue notamment à l'étude de la dynamique des pulsars binaires, la population d'étoiles à neutrons, et à celle des magnétars, objets au plus fort rayonnement électromagnétique connus dans l'Univers.

La prof. Kaspi se voit décerner de nombreux prix et honneurs, dont la Médaille d'or Gerhard-Herzberg en sciences et en génie du Canada du CRSNG en 2016, le Prix Killam en 2015, le Prix John C. Polanyi du CRSNG en 2011, le Prix du Québec en 2009, et le poste de chargé de cours Sackler de l'Université Harvard en 2009. Elle est boursière de la R. Howard Webster Foundation de l'Institut canadien de recherches avancées, et membre de la Société royale du Canada. En 2010, elle est accueillie comme membre de la Royal Society of London et elle est élue à la National Academy of Sciences des É.-U. et, en 2015, est accueillie à titre de membre de l'American Academy of Arts and Sciences.

MONDAY, JUNE 13 - 19h30

SHAW CENTRE
OTTAWA, ON**2016 HERZBERG MEMORIAL PUBLIC LECTURE**

Victoria Kaspi
Department of Physics
McGill University

The Cosmic Gift of Neutron Stars

Although they are thousands of light years away, neutron stars can act as very precise cosmic beacons -- a celestial gift that sheds light on some of the most interesting problems in modern science. We will explore these strange objects, explain how astronomers are using them to study issues ranging from the origins of the Universe to the very nature of matter, and even listen to the cosmic symphony they create.

BIOGRAPHICAL NOTE

Victoria Kaspi is a Professor of Physics at McGill University, where she holds the Lorne Trottier Chair in Astrophysics and Cosmology, and a Canada Research Chair in Observational Astrophysics. She is also Director of the newly created McGill Space Institute.

She received a B.Sc. (Honours) in Physics from McGill University in 1989, and an M.A. and Ph.D. in Physics from Princeton University in 1991 and 1993 respectively. From 1994-96, she held a Hubble Postdoctoral Fellowship at the Jet Propulsion Laboratory and California Institute of Technology. She was an Assistant Professor of Physics at the Massachusetts Institute of Technology from 1997-2000, and joined the McGill Department of Physics in 2000.

Prof. Kaspi uses techniques of radio and X-ray astronomy to study rapidly rotating, highly magnetized neutron stars. She has done significant work involving radio pulsars and magnetars. More specifically, she has contributed among other things to the study of binary pulsar dynamics, the neutron star population, as well as the study of magnetars, the most highly magnetized objects known in the Universe.

Prof. Kaspi has been the recipient of numerous awards and honours, including the NSERC Gerhard Herzberg Canada Gold Medal for Science and Engineering in 2016, the Killam Prize in 2015, NSERC's John C. Polanyi Award in 2011, the Prix du Québec in 2009, and the Harvard University Sackler Lectureship in 2009. She is the R. Howard Webster Foundation Fellow of the Canadian Institute for Advanced Research, and a Fellow of the Royal Society of Canada. In 2010 she was inducted as a Fellow of the Royal Society of London, and elected to the U.S. National Academy of Sciences, and was inducted into the American Academy of Arts and Sciences in 2015.

MONDAY, JUNE 13

- MARION HALL -

LUNDI 13 JUIN

**HENDRIK SCHATZ, MICHIGAN STATE UNIV.**ROOM: MRN 150
09h30 - 10h20

NUCLEAR ASTROPHYSICS WITH RADIOACTIVE BEAMS

Stellar explosions and colliding neutron stars are important sources of the chemical elements in nature. The properties of very unstable isotopes that are created for fleeting moments in these extreme astrophysical sites, imprint themselves onto the nature of the explosion and the characteristic element patterns that are created and ultimately shape the composition of the visible universe. Accelerator facilities that produce beams of these short lived radioactive isotopes can now be used to study the relevant nuclear reaction rates and nuclear properties so one can understand in the laboratory how stars create elements. This also opens the door to using observed element patterns as a diagnostic tool to peek into the deep interiors of some of the most extreme stellar sites. I will review some of the current open questions related to astrophysical processes with unstable nuclei, and how experiments at current and planned rare isotope facilities in the US, Canada, and elsewhere, in concert with observations and astrophysical models, are addressing these questions..

**ROGER MELKO, U.WATERLOO / PERIMETER INSTITUTE**

(CAP Herzberg Medal Winner / Récipiendaire de la médaille Herzberg de l'ACP)

ROOM: MRN 150
14h45 - 15h15

THE INFORMATION AGE IN CONDENSED MATTER PHYSICS

Monte Carlo simulations have been ubiquitous in efforts to simulate and characterize properties of matter and materials since the advent of computers themselves. In the last decade, condensed matter physicists have turned simulation technology to the study of a new set of phenomena, loosely termed as "emergent", with correlations not manifested in traditional correlation functions. Motivated by this, a new set of tools was recently developed that allows one to probe emergent phenomena in Monte Carlo simulations through their entanglement entropy - a concept borrowed from quantum information theory.

Remarkably, since certain scaling terms in the entanglement entropy are universal, this provides a powerful general method to characterize phases and phase transitions in a wide variety of physical theories. Thus, Monte Carlo simulations are beginning to play a central role for physicists who increasingly rely on information quantities to study correlations not only in condensed matter systems and quantum devices, but even in quantum fields and theories of quantum gravity.

TUESDAY, JUNE 14

- MARION HALL -

MARDI 14 JUIN

**JAMES FRASER, QUEEN'S UNIV.**

(CAP Teaching Medal Winner / Récipiendaire de la médaille d'enseignement de l'ACP)

ROOM: MRN 150
10h30 - 11h00

GOING BEYOND "INTERACTIVE": DEVELOPING SCIENTIST-APPRENTICES IN THE PHYSICS LECTURE HALL

Though an extensive amount of literature documents the improved learning gains made by interactive teaching compared to traditional lecture delivery, results vary widely between courses[1]. Part of the problem is that different instructors aim for active learning through widely varying (and sometimes conflicting) approaches[2]. In addition, even the most well-verified and effective teaching approach will fail

without student buy in. I propose a simple framework that can help you identify effective active learning instructional strategies and how to implement them successfully. Results (both positive and less than positive) from a large first-year physics course will be discussed. [1] one example among 100s: Freeman et al., Proceedings of the National Academy of Sciences 111, 8410 (2014). For a contrasting view, Andrews et al., CBE-Life Sciences Education 10, 394-405 (2011); [2] Turpen and Finkelstein, Physical Review Special Topics-Physics Education Research 5, 020101 (2009).

**MARIO PINTO, NSERC**ROOM: MRN 150
11h00 - 11h30

NSERC 2020 STRATEGIC PLAN

PLAN STRATÉGIQUE DE 2020 DU CRSNG



RUSSELL JACOBS, CALIFORNIA INST. OF TECH.

(SPONSORED BY BRUKER BIOSPIN)

ROOM: MRN 150
15h00 - 15h45

USES AND ABUSES OF μ MRI AND SIMULTANEOUS μ PET/ μ MRI: A CHEMISTS TALKS WITH PHYSICISTS ABOUT BIOLOGY

Like any technology, μ MRI and μ PET have appropriate and inappropriate uses. I will discuss why one might bother with either; then cover a range of applications: how 3D atlas of mouse and quail can be created from high resolution MR images; delve into how lesions and brain structure changes in mouse models of multiple sclerosis are amenable to study with MRI; describe how statistical parametric mapping (SPM) of multiple MRI brain scans of transgenic mouse models provide information about neuronal circuitry alterations. Monitoring changes in tumor physiology is an important aspect of both clinical and pre-clinical imaging – ADC, DCE and cell tracking work will be discussed. Recording of μ PET and μ MR images simultaneously is a recent development with a host of uses and abuses – work in mouse models of atherosclerosis and oncology require the sensitivity of μ PET and resolution with anatomical context of μ MRI.

WEDNESDAY, JUNE 15

- MARION HALL -

MERCREDI 15 JUIN



CARLOS SILVA, U. DE MONTRÉAL

(CAP Brockhouse Medal Winner / Récipiendaire de la médaille Brockhouse de l'ACP)

ROOM: MRN 150
11h00 - 11h30

EXCITONIC CORRELATIONS AND THEIR RELATIONSHIP TO SOLID-STATE MICROSTRUCTURE IN POLYMERIC SEMICONDUCTORS

This presentation will summarise a body of work emanating from our research group over the past five years. It focuses on correlating the properties of excitons with the complex solid-state microstructure in macromolecular semiconductors. Via analysis of absorption and photoluminescence spectral line-shapes, we have developed a protocol by which the spatial coherence of excitons, the degree to which the disordered landscape is correlated, and the interplay of intra- and interchain excitonic coupling in disordered polymeric semiconductors can be predicted when processing thin films within devices. I will outline novel ultrafast optical probes developed to probe in more detail the spectral correlations arising from excitonic properties of this class of materials.



GILLES FONTAINE, U. DE MONTRÉAL

(CAP Medal of Achievement Winner / Récipiendaire de la médaille pour contributions exceptionnelles de l'ACP)

ROOM: MRN 150
11h30 - 12h00

MEASURING THE TOTAL ANGULAR MOMENTUM OF STARS THROUGH ASTEROSEISMOLOGY

Have stars that end up as isolated white dwarfs lost their initial angular momentum as suggested by the relatively long rotation periods measured at their surfaces through spectroscopy? Could it be instead that a large fraction of that angular momentum is bound in a fast rotating core, hidden from direct observations, as proposed by some theories favouring a weak rotational coupling between the radiative core and the convective envelope in the previous red giant phase of stellar evolution? To answer these questions, we need to map the internal rotation profiles of representative white dwarfs. In the last few years, we have devised a way to exploit the signature that rotation imprints on the pulsation properties of white dwarfs in order to carry out such a mapping. The technique is particularly useful for pulsating white dwarfs of the so-called GW Vir type, for which the mapping can be done over essentially the full mass of the star, thus allowing a determination of the total angular momentum.

COMMUNITY UPDATES

MISES-À-JOUR POUR LA COMMUNAUTÉ



TUES. JUNE 14
MRN 150
11h30 - 11h45

LI-HONG XU

EVALUATION GROUP CHAIR
PRÉSIDENTE DU GROUPE D'ÉVALUATION



TUES. JUNE 14
MRN 150
11h45 - 12h00

WILLIAM WHELAN

CAP-NSERC LIAISON COMMITTEE
COMITÉ DE LIAISON ACP-CRSNG



WED. JUNE 15
SITE G0103
16h40 - 17h00

ADAM SARTY

CAP PRESIDENT'S REPORT / RAPPORT DU PRÉSIDENT DE L'ACP

THURSDAY, JUNE 16

- MARION HALL / COLONEL BY -

JEUDI 16 JUIN

**RICHARD BOUDREAU, POLAR KNOWLEDGE CANADA**

(CAP-INO Medal Winner / Récipiendaire de la médaille de l'ACP-INO)

ROOM: CBY C03

11h00 - 11h30

POLAR SCIENCE FOR PHYSICISTS

Canada occupies 25% of the Arctic and, of our three ocean coasts, the Arctic Ocean's is by far the longest while being the least known. The strategic and economic importance of the North for Canadians and the world cannot be minimized. More than 100 000 people live in the north, a majority of whom are First Nations and Inuit. In view of the importance of the Polar Regions to Canadians, our government decided a year ago to create its own national polar agency, Polar Knowledge Canada (POLAR), with a goal of reconciling our knowledge base of the Arctic with the challenges we face. The objective of this presentation is enlighten my fellow physicists to the challenges and opportunities that comes from polar research.

**FREDDY CACHAZO, PERIMETER INSTITUTE**

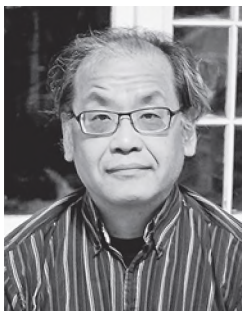
(CAP-CRM Prize Winner / Récipiendaire de la prix'ACP-CRM)

ROOM: MRN 150

11h00 - 11h30

S-MATRIX THEORY: A BRIDGE BETWEEN PHYSICS AND MATHEMATICS

Scattering amplitudes of massless particles have proven to be very interesting mathematical objects. While clearly defined in terms of Feynman diagrams, these seemingly complicated functions of several complex variables become shockingly simple after miraculous cancellations. In this talk I will explain how Riemann surfaces, cluster algebras and the positive Grassmannian are some of the mathematical ideas responsible for this surprising behavior of standard quantum field theory S-matrices.

**AKIRA KONAKA, TRIUMF**

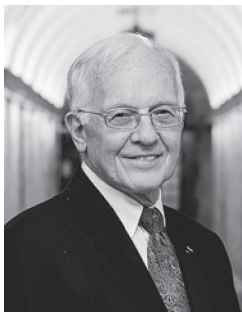
(CAP Vogt Medal Winner / Récipiendaire de la médaille Vogt de l'ACP)

ROOM: MRN 150

11h30 - 12h00

QUEST FOR CP VIOLATION IN NEUTRINO OSCILLATIONS

Neutrino oscillation shows that different flavours of neutrinos, ν_e , ν_μ , and ν_τ , mix like quarks. Thus CP violation is expected due to the complex phase in the mixing matrix as is in the quark case. Since the observables of CP violation, namely difference between neutrino and anti-neutrino oscillations, is proportional to the three mixing angles, $\sin^2\theta_{12}$, $\sin^2\theta_{23}$ and $\sin^2\theta_{13}$, all the three angles need to be large enough for the CP violation to be accessible. Since the discovery of the first neutrino oscillation in 1998, all these three mixing angles have been observed to be surprisingly large. The last angle θ_{13} was observed by T2K long baseline neutrino and Daya Bay/Reno reactor neutrino experiments. Because the T2K observable is also sensitive to CP violation, the comparison between T2K and reactor experiments shows a hint of potentially large effect due to CP violation phase. If the CP violation in neutrino oscillation is indeed large, it could naturally explain the matter vs. anti-matter asymmetry of the universe. An extension of T2K is being proposed to discover this leptonic CP violation in the decade. In this talk, I will present the status and prospect of the CP violation measurement in neutrino oscillation.

**PAUL CORKUM, UNIV. OF OTTAWA**

ROOM: MRN 150

17h00 - 17h45

PROBED QUANTUM SYSTEMS FROM THE INSIDE – ON THE ATTOSECOND TIME SCALE

Attosecond pulses are generated by electrons that are extracted from a quantum system by tunneling in an intense light pulse and travel through the continuum. Portions of each electron wave packet are forced to re-collide with its parent ion by the oscillating force of the time dependent electric field. Upon re-collision, the electron and ion can re-combine, emitting soft X-ray radiation. This highly nonlinear process occurs in atoms, molecules and solids and offers unique measurement opportunities –of the attosecond pulses themselves; of molecular orbitals; and even the band structure of large bandgap semiconductors..

SUNDAY, JUNE 12

DIMANCHE 12 JUIN

IPP Townhall Meeting I <i>Consultation publique de l'IPP I</i>	Room / Salle : CBY C03 08h00 -12h00
IPP and CINP Meetings and Reports <i>Réunions et Rapports de l'IPP et ICPN</i>	Room / Salle : CBY C03 13h30 -16h15

MONDAY, JUNE 13

LUNDI 13 JUIN

IPP Townhall Meeting II <i>Consultation publique de l'IPP II</i>	Room / Salle : CBY C03 08h00 -09h30
Science Policy Workshop <i>Atelier sur la politique scientifique</i>	Room / Salle : CBY C03 12h00 - 13h00
Meet with two dynamic physicists who help to shape science policies in Canada for a "lunch and learn" style session. / <i>Rencontre avec deux physiciennes dynamiques qui contribuent à façonner les politiques scientifiques au Canada pour une session de style « déjeuner et apprendre ».</i>	
New Faculty Lunch Meeting with NSERC <i>Dîner-rencontre des nouveaux professeurs avec le CRSNG</i>	SITE C0136 12h00 - 13h00
CAP Welcome Barbeque <i>Réception d'accueil avec BBQ</i>	SITE Lawn / Pelouse 17h30 - 19h00
Herzberg Public Lecture and Reception <i>Conférence publique Herzberg et réception</i>	Shaw Centre Shaw 19h00 - 22h00
(Doors open at 19h00; Talk begins at 19h30) (<i>les portes seront ouvertes à 19h00; la présentation commence à 19h30</i>)	

TUESDAY, JUNE 14

MARDI 14 JUIN

NSERC's Research Partnership Programs <i>Programmes de partenariat de recherche du CRSNG</i>	Room / Salle : CBY D207 12h00 - 13h15
This is a moderated panel discussion and Q&A. Learn how to get started, the challenges/rewards and tips for a successful researcher-industry partnership. <i>C'est un groupe de discussion modéré avec QetR. Apprendre comment démarrer, les défis/récompenses et des conseils pour un partenariat chercheur-industrie réussi.</i>	
Carl Zeiss Canada Student-Industry Meet & Mingle <i>Session de réseautage industrie-étudiants Carl Zeiss Canada</i>	Room / Salle : SITE G0103 17h30 - 18h45
This session is dedicated to physicists working in non-academic careers. Students will have an opportunity to learn about physics careers ranging from industrial to institutional. <i>Cette session est consacrée aux physiciens travaillant dans les carrières non-universitaires. Les étudiants auront l'occasion d'en savoir plus sur les carrières de physique d'industrielles à institutionnelles.</i>	

TUESDAY, JUNE 14 / MARDI 14 JUIN

MacDonald Hall (MCD) 146

16th Annual Physics Teachers Day**16^e Journée annuelle des enseignants de physique**

On Tuesday, June 14 th , high school and CEGEP science teachers will take part in the CAP 16 th annual Physics Teachers Day at the University of Ottawa as part of the CAP's 2016 Congress. This event is sponsored by TRIUMF, the University of Ottawa Physics Department, and the Perimeter Institute.	Le mardi 14 juin les enseignants en sciences de la région participeront à la 16 ^e journée annuelle des enseignants de physique du Congrès 2016 de l'ACP à l'Université d'Ottawa. Cet événement est parrainé par TRIUMF, le département de physique de l'Université d'Ottawa et le <i>Perimeter Institute</i> .
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Time	Location	Activity
8:15 am	MCD Lobby	Meet and Greet, Coffee (at MCD), and Registration
8:45 am	MCD 146	Welcome and Introduction
9:00 am	MCD 146	Paul Corkum: Attosecond Science
9:30 am	MCD 146	Calvin Kalman: Changing Students' Approach to Learning Physics
10:00 am	SITE Lobby	Coffee Break
10:30 am	MRN 150	CAP Undergraduate Teaching Award Talk
11:00 am	MCD 146	Hands-on workshop by the Perimeter Institute
12:30 pm	MRN	Buffet Lunch and Physics Outreach Discussion
1:30 pm – 3:00 pm	MCD 205	Hands-on undergraduate lab activities
2:30 pm	MCD 205	Participation Certificates given out
3:00 pm	ARC Lobby	Tours of labs in the Advanced Research Complex
3:45 pm	SITE Lobby	Coffee Break
4:15 pm	MCD 146	CAP High School Physics Teaching Award Talk (Diana Hall)
4:45 pm	MCD 146	Trends and challenges in teaching physics: moderated discussion
Extended Day Activities (Open to all Attendees)		
5:15 pm	SITE, MCD	Visits to the bio-physics research labs, observatory and uOttawa Makerspace (3D Printers)
6:00 pm		Free time for dinner at local restaurants (meal not included in fee)
7:00 pm – 10:00 pm	SITE Lobby	CAP Congress Poster Session, with beer (one complimentary beverage included)
7:30 pm – 8:00 pm	SITE Lobby	Jobs in Physics: Industry meet and mingle for teachers and students

TUESDAY, JUNE 14

MARDI 14 JUIN

Poster Session and Student Competition
Session d'affiches et concours étudiants

Room / Salle : SITE Atrium
 19h00 - 22h00

(with beer and light refreshments / *bière et petit goûter servis*)

WEDNESDAY, JUNE 15

MERCREDI 15 JUIN

**CAP-APCTP MOU Signing Ceremony and
 Information Session**

Room / Salle : SITE J0106
 12h30 - 13h00

Cérémonie de signature du PE entre l'ACP et l'APCTP

Canada has been accepted as a member of the Asia-Pacific Centre for Theoretical Physics. The MOU will be signed and benefits explained. / *Le Canada a été accepté comme membre de l'Asia-Pacific Centre for Theoretical Physics. Le protocole d'entente sera signé et les avantages expliqués.*

Professional Practice Development Session

Room / Salle : SITE A0150

Session sur le développement de l'exercice professionnel

18h45 - 20h00

CEWIP Annual Meeting & Reception

Room / Salle : CBY D103

Assemblée annuelle CEFEP et réception

18h45 - 20h00

**Public Lecture: 100 Years in 100 Minutes: A Century
 of Physics at the National Research Council of Canada**

Room / Salle : MRN 150

19h30 - 21h30

Conférence publique : 100 ans en 100 minutes :

Un siècle de physique au Conseil national de recherche du Canada

(Doors open at 18h45. Have cake and browse the displays. The talks begin at 19h30.)

MC - Richard Bourgeois-Doyle, NRC.

Speakers / Conférenciers :

- Basic and applied physics and standards - Dr. Nelson Rowell, NRC Photometry and Spectrophotometry
- Chemical physics - Dr. Albert Stolow, Canada Research Chair in Molecular Photonics, University of Ottawa
- Astrophysics - Dr. Gregory Fahlman, NRC General Manager, NRC Herzberg
- Biological physics - Dr. Linda Johnston, NRC Nanoscale Measurement
- Physics for industrial applications - Dr. Sylvain Charbonneau, Associate Vice-President, Research, University of Ottawa

THURSDAY, JUNE 16

JEUDI 16 JUIN

CAP Best Student Oral Competition

Room / Salle : MRN 150

Compétition finale - meilleures communications étudiantes

15h00 - 17h00

Recognition Reception

Shaw Centre *Shaw*

Gala reconnaissance

18h30 - 22h00

(Doors open at 18h30; Award presentation starts at 19h15)

(*les portes seront ouvertes à 18h30; les présentations des bourses commencent à 19h15*)

Canadian Association of Physicists
Association canadienne des physiciens et physiciennes

ANNUAL GENERAL MEETING - DRAFT AGENDA

ASSEMBLÉE GÉNÉRALE ANNUELLE - ORDRE DU JOUR PROVISOIRE

DATE : Wednesday, June 15, 2016
Le mercredi, 15 juin 2016

TIME/HEURE : 17h00-18h30

PLACE : SITE Room/Salle G0103, University of Ottawa, Ottawa, ON

Draft Agenda / Ordre du jour provisoire

1. Call to Order and Establishment of Quorum
2. Approval of the Agenda / Review of Voting Procedures (voting from 17h15-17h45)
3. Approval of the Minutes of the June 17, 2015 Annual General Meeting
 - .1 Matters arising from the Minutes
4. Annual Report
 - .1 Membership Report
 - .2 Audited Financial Statements to December 31, 2015
5. Appointment of Auditors
6. Presidential Address summarizing the past year's activities
 (* items not covered in the Plenary talk which immediately precedes the AGM)
7. Report by the Co-Chairs of the 2016 Local Organizing Committee
8. Host Universities - Future Congresses
9. New Business
 - .1 2017 Membership Fees (A. Sarty)
 - .2 Report on CAP Communications Audit and Strategy (M. Pavan)
 - .3 Report on CAP Implementation Plan Activities (A. Sarty)
 - .4 Report from CAPF Board of Directors / Fundraising campaign (M. Roney)
 - .5 CUPC 2016 at Dalhousie University (J. Sampson)
 - .6 Report by the Editor of Physics in Canada (B. Joós)
 - .7 Report by the Editor of Canadian Journal of Physics (M. Steinitz)
 - .8 Report of the Canadian National IUPAP Liaison Committee (J. Dilling)
 - .9 Other Matters
10. Report of the Nominating Committee (R. Fedosejevs)
11. Result of 2016 Board of Directors Elections (F. Ford)
12. Vote of Thanks and Change of the Chair
13. Date and Place of Next Meeting (June 2017, Queen's University, Kingston, ON)
14. Adjournment

ABBREVIATION KEY / CODES DES ABRÉVIATIONS

Divisions

DAMOPC	Division of Atomic, Molecular and Optical Physics, Canada	DNP	Division of Nuclear Physics
DPAMPC	<i>Division de la physique atomique, moléculaire et photonique, Canada</i>	DPN	<i>Division de la physique nucléaire</i>
DASP	Division of Atmospheric and Space Physics	DPE	Division of Physics Education
DPAE	<i>Division de la physique atmosphérique et de l'espace</i>	DEP	<i>Division de l'enseignement de la physique</i>
DCMMP	Division of Condensed Matter and Materials Physics	DPP	Division of Plasma Physics
DPMCM	<i>Division de la physique de la matière condensée et matériaux</i>	DPP	<i>Division de la physique des plasmas</i>
DPMB	Division of Physics in Medicine and Biology	DSS	Division of Surface Sciences
DPMB	<i>Division de la physique en médecine et biologie</i>	DSS	<i>Division des sciences des surfaces</i>
DIAP	Division of Industrial and Applied Physics	DTP	Division of Theoretical Physics
DPIA	<i>Division de la physique industrielle et appliquée</i>	DPT	<i>Division de la physique théorique</i>
DHP	Division on the History of Physics	PPD	Particle Physics Division
DHP	<i>Division de l'histoire de la physique</i>	PPD	<i>Division de la physique des particules</i>
DIMP	Division of Instrumentation and Measurement Physics	CEWIP	Committee to Encourage Women in Physics
DPIM	<i>Division de la physique des instruments et mesures</i>	CEFEP	<i>Comité pour encourager les femmes en physique</i>

(G) = Graduate student
étudiant diplômé
 (U) = Undergraduate student
étudiant de premier cycle
 * = Student competitor
Compétiteur étudiant

Sessions

S-xx	Sunday Meeting / <i>Réunion du dimanche</i>	W-xx	Wednesday meeting / <i>Réunion du mercredi</i>
M-xx	Monday meeting / <i>Réunion du lundi</i>	W#-#	Wednesday Session / <i>Session du mercredi</i>
M#-#	Monday Session / <i>Session du lundi</i>	R-xx	Thursday Session / <i>Session du jeudi</i>
T-xx	Tuesday meeting / <i>Réunion du mardi</i>	R#-#	Thursday meeting / <i>Réunion du jeudi</i>
T#-#	Tuesday Session / <i>Session du mardi</i>	F-xx	Friday meeting / <i>Réunion du vendredi</i>
T-POS#	Tuesday evening Poster session / <i>Session d'affiches du mardi soir</i>		
All/Tous	Friday Best Student Paper Competition / <i>Compétition pour les meilleures communications étudiantes, le vendredi matin</i>		
xx-Plen	Plenary session on Monday (M), Tuesday (T), Wednesday (W), or Thursday (R), / <i>Session plénière du lundi (M), mardi (T), mercredi (W) ou, jeudi (R)</i>		
xx-MEDAL	Medallist session on Monday (M), Tuesday (T), Wednesday (W), or Thursday (R) / <i>Session lauréat du lundi (M), mardi (T), mercredi (W) ou jeudi (R)</i>		

LEGEND / LÉGENDE (see maps on page vii, viii / voir cartes, p. vii, viii)

CBY = Colonel By

MCD = MacDonald Hall

MRN = Marion Hall

FSS = Faculty of Social Sciences

STE = SITE

**CAP Congress / Congrès de l'ACP
University of Ottawa / Université d'Ottawa
June 13-17 juin 2016****Sunday, June 12 / dimanche 12 juin**

08:00-12:00	IPP Town Hall I / Consultation publique de l'IPP I	CBY C03
12:30-17:00	CAP Advisory Council (Old and New) / Conseil consultatif de l'ACP (ancien et nouveau)	FSS 4004
13:30-16:15	Joint CINP-IPP Meeting / Réunion conjointe de l'ICPN et de l'IPP (DPN-PPD)	CBY C03
16:30-18:00	CINP AGM/ AGA de l'ICPN	CBY D103
18:00-19:00	CINP Board Meeting / Réunion du conseil de l'ICPN	CBY D103
16:30-18:00	IPP AGM / AGA de l'IPP	CBY C03
17:00-20:30	CAP Board of Directors Dinner Meeting (old and new) / Réunion et dîner du c.a. de l'ACP (ancien et nouveau)	FSS 4004
19:30-21:30	IPP Inst. Members and Board of Trustees Meetings / Réunions des membres inst. et du conseil de l'IPP	CBY D103

Monday, June 13 / lundi 13 juin

08:00-17:30	Congress Registration and Information / Inscription au congrès et information	STE ATRIUM (lower level)
08:00-09:30	IPP Town Hall II / Consultation publique de l'IPP II	CBY C03
09:30-10:20	Plenary Session - Start of Conference - Hendrik Schatz, Michigan State Univ./NSCL / Session plénière - Ouverture du Congrès - Hendrik Schatz, Michigan State Univ. / NSCL	MRN 150
10:30-12:00	M1-1 Newish-faculty Workshop: So You Think You Can Teach Physics! (DPE) / Atelier pour nouveaux professeurs : vous pensez pouvoir enseigner la physique! (DEP)	CBY B012
10:30-12:00	M1-2 Material Growth and Processing (DCMMP) / Croissance et traitement des matériaux (DPMCM)	CBY B205
10:30-12:00	M1-3 Theory, Modelling, and Forecasting I (DASP) / Théorie, modélisation et prévisions I (DPAE)	CBY D103
10:30-12:00	M1-4 Neutrinoless Double Beta Decay I (PPD-DNP-DTP) / Double désintégration beta sans neutrino I (PPD-DPN-DPT)	CBY C03
10:30-12:00	M1-5 Soft Matter and Polymers (DCMMP-DPMB) / Matière molle et polymères (DPMCM-DPMB)	CBY D207
10:30-12:00	M1-6 Laser-Plasma Interactions (DPP-DAMOPOC) / Interactions laser-plasmas (DPP-DPAMPC)	STE C0136
10:30-12:00	M1-7 Atomic and Molecular Spectroscopy and Precision Measurements I (DAMOPOC) / Spectroscopie atomique et moléculaire et mesures de précision I (DPAMPC)	STE G0103
12:00-13:00	Science Policy Workshop / Atelier Politique scientifique	CBY C03
12:00-13:00	Lunch / Dîner	
12:00-13:00	New Faculty Lunch Meeting with NSERC / Dîner-rencontre des nouveaux professeurs avec le CRSNG	STE C0136
13:00-14:30	M2-1 Nuclear Structure I (DNP) / Structure nucléaire I (DPN)	CBY B012
13:00-14:30	M2-2 Molecular Biophysics (DPMB) / Biophysique moléculaire (DPMB)	CBY B205
13:00-14:30	M2-3 Ultrafast and Time-Resolved Processes (DAMOPOC) / Procédés ultrarapides et résolus dans le temps (DPAMPC)	CBY D207
13:00-14:30	M2-4 Mathematical Physics (DTP) / Physique mathématique (DPT)	STE C0136
13:00-14:30	M2-5 Energy Frontier: SUSY and Exotics (PPD) / Frontière d'énergie: supersymétrie et particules exotiques (PPD)	MCD 146
13:00-14:30	M2-6 Theory, Modelling, and Forecasting II (DASP) / Théorie, modélisation et prévisions II (DPAE)	CBY D103
13:00-14:30	M2-7 Carbon-based Nanomaterials (DCMMP-DSS) / Nanomatériaux à base de carbone (DPMCM-DSS)	STE G0103
14:45-15:15	M-MEDAL CAP Medal Talk - Roger Melko, U. of Waterloo / Perimeter Institute (CAP Herzberg Medal Recipient / Récipiendaire de la médaille Herzberg de l'ACP)	MRN 150
15:15-15:45	Health Break / Pause santé	STE ATRIUM
15:45-17:30	CAP-NSERC Liaison Cttee Mtg / Réunion du comité de liaison ACP-CRSNG	CBY A707A
15:45-17:30	M3-1 Nuclear Astrophysics (DNP) / Astrophysique nucléaire (DPN)	CBY B205
15:45-17:15	M3-2 Atomic and Molecular Spectroscopy and Precision Measurements II (DAMOPOC) / Spectroscopie atomique et moléculaire et mesures de précision II (DPAMPC)	CBY D207
15:45-17:15	M3-3 Fields and Strings (DTP) / Champs et cordes (DPT)	STE C0136
15:45-17:15	M3-4 Materials Characterization: Microscopy and Imaging (DCMMP) / Caractérisation des matériaux: microscopie et imagerie (DPMCM)	STE G0103
15:45-17:15	M3-5 Cosmic frontier: Dark matter I (PPD) / Frontière cosmique: matière sombre I (PPD)	MCD 146
15:45-17:15	M3-6 Computational Biophysics: Methods and Concepts (DPMB) / Biophysique numérique : méthodes et concepts (DPMB)	CBY B012
15:45-17:15	M3-7 Atmospheric and Space Physics I (DASP) / Physique atmosphérique et de l'espace I (DPAE)	CBY D103
17:30-19:00	Welcome BBQ Reception / Réception d'accueil avec BBQ	STE Lawn
19:30-20:30	Herzberg Memorial Public Lecture - Victoria Kaspi, McGill Univ. / Conférence commémorative publique Herzberg - Victoria Kaspi, Univ. McGill	Shaw Centre
20:30-22:00	Post-talk Reception	Shaw Centre

Tuesday, June 14 / mardi 14 juin

08:00-17:30	Congress Registration and Information / Inscription au congrès et information	STE ATRIUM (lower level)
07:30-08:30	Science Policy Committee Breakfast Meeting / Réunion-déjeuner du Comité de politique scientifique	STE 5084
08:15-17:15	Teachers' Day / Journée des enseignants	MCD 146
08:30-16:00	Exhibit booths open / Salle d'exposition ouverte	STE ATRIUM
08:30-10:00	T1-1 Medical Imaging (DPMB) / Imagerie médicale (DPMB)	CBY C03
08:30-10:00	T1-2 Lab Revitalisation: Innovative and Distance Undergraduate Labs (DPE) / Revitalisation de labos : laboratoires de premier cycle innovateurs et à distance (DEP)	CBY D103
08:30-10:00	T1-3 Materials Characterization: Electrical, Optical, Magnetic, Thermal (DCMMP) / Caractérisation des matériaux: électrique, optique, magnétique et thermique (DPMCM)	CBY D207
08:30-10:00	T1-4 Ground-based and In Situ Observations I (DASP) / Observations sur terre et in situ I (DPAE)	SITE C0136
08:30-10:00	T1-5 Neutrinoless Double Beta Decay II (PPD-DNP-DTP) / Double désintégration beta sans neutrino II (PPD-DPN-DPT)	STE G0103
08:30-10:00	T1-6 Nanostructured and Functional Nanomaterials (DCMMP-DIAP) / Nanomatériaux nanostructurés et fonctionnels (DPMCM-DPIA)	CBY B205
08:30-10:00	T1-7 Mass spectrometry in nuclear waste management and control at the border (DIAP-DIMP) / Spectrométrie de masse dans la gestion des déchets nucléaires et surveillance à la frontière (DPIA-DPIM)	STE J0106
08:30-10:00	T1-8 General Relativity (DTP) / Relativité générale (DPT)	CBY B012
10:00-10:30	Health Break (with exhibitors) / Pause santé (avec exposants)	
10:30-11:00	T-MEDAL CAP Medal Talk - James Fraser, Queen's U. (Teaching Undergraduate Physics / Enseignement de la physique au 1er cycle)	MRN 150
11:00-11:30	NSERC Presentation by Mario Pinto / Présentation du CRSNG par Mario Pinto	MRN 150
11:30-11:45	NSERC EG Chair Report (L.-H. Xu) / Rapport de la présidente du GE (L.-H. Xu)	MRN 150
11:45-12:00	CAP-NSERC Liaison Committee Report (W. Whelan) / Rapport du Comité de liaison ACP-CRSNG (W. Whelan)	MRN 150
12:00-13:15	NSERC's Research Partnership Programs / Programmes de partenariat de recherche du CRSNG	CBY D207
12:00-13:00	IPP Scientific Council Meeting / Réunion du comité scientifique de l'IPP	CBY E016
12:00-13:00	DPMB Annual Meeting / Assemblée annuelle DPMB	STE G0103
12:00-13:00	DASP Annual Meeting / Assemblée annuelle DPAE	STE C0136
12:00-13:00	DPP Annual Meeting / Assemblée annuelle DPP	CBY D103
12:00-13:00	DAMOPC Annual Meeting / Assemblée annuelle DPAMC	CBY B012
12:00-13:00	DNP Annual Meeting / Assemblée annuelle DPN	STE J0106
12:00-13:00	Lunch / Dîner	
13:15-14:45	T2-1 Nuclear Structure II (DNP) / Structure nucléaire II (DPN)	CBY D103
13:15-14:45	T2-2 Nonlinear Dynamics (DPMB) / Dynamiques non linéaires (DPMB)	CBY C03
13:15-14:45	T2-3 Cosmic Frontier: Dark Matter II (PPD) / Frontière cosmique: matière sombre II (PPD)	CBY B205
13:15-14:45	T2-4 Ground-based and In Situ Observations II (DASP) / Observations sur terre et in situ II (DPAE)	STE C0136
13:15-14:45	T2-5 Photonics I: Applications (DAMOPC-DPP) / Photonique I : applications (DPAMPC-DPP)	STE G0103
13:15-14:45	T2-6 Condensed Matter Theory (DTP-DCMMP) / Théorie de la matière condensée (DPT-DPMCM)	CBY D207
13:15-14:45	T2-7 Gravity, Astrophysics and Cosmology (DTP) / Gravité, astrophysique et cosmologie (DPT)	CBY B012
13:15-14:45	T2-8 Doing Physics-doing Gender: Should gender issues be of any importance in the physics community? (CEWIP) / Physique et genre : les questions de genre devraient-elles avoir de l'importance dans la communauté de physique? (CEFEP)	STE J0106
15:00-15:45	T-PLEN Bruker BioSpin Plenary Session / Session plénière - Russell Jacobs, Beckman Inst./Caltech	MRN 150
15:45-16:15	Health Break (with exhibitors) / Pause santé (avec exposants)	STE ATRIUM
16:15-18:00	T3-1 Hadronic Structure (DNP) / Structure hadronique (DPN)	CBY B205
16:15-17:30	T3-2 Plasma Physics and Applications (DPP) / Applications et physique des plasmas (DPP)	STE C0136
16:15-17:30	T3-3 Quantum Computing and Coherent Control (DAMOPC) / Calcul quantique et contrôle cohérent (DPAMPC)	STE G0103
16:15-17:30	T3-4 Quantum Gravity and Quantum Cosmology (DTP) / Gravité quantique et cosmologie quantique (DPT)	CBY D103
16:15-17:30	T3-5 Cosmic Frontier: Dark Matter III (PPD) / Frontière cosmique: matière sombre III (PPD)	CBY D207
16:15-17:30	T3-6 Panel Discussion - Women in Physics: What's in it for both men and women? (CEWIP) / Table ronde - Les femmes en physique : qu'en retirent les hommes et les femmes? (CEFEP)	CBY C03
16:15-17:30	T3-7 Applied Physics in Non-Academic Environment (DIAP-DIMP) / La physique hors université (DPIA-DPIIM)	CBY B012
16:15-17:30	T3-8 Thin Films I (DSS-DCMMP) / Couches minces I (DSS-DPMCM)	STE J0106
16:15-17:30	T3-9 Atmospheric and Space Physics (DASP) / Physique atmosphérique et de l'espace II (DPAE)	STE H0104
17:30-18:45	CAP Past Presidents' Meeting / Réunion des anciens présidents de l'ACP	CBY B202
17:30-18:45	Department Leaders Business Meeting / Réunion d'affaires des directeurs de départements	Desmarais 12-102
17:30-18:45	Carl Zeiss Canada Student-Industry Meet & Mingle / Réseautage industrie-étudiants	STE G0103
19:00-22:00	Poster Session with beer / Session d'affiches, avec bière	STE ATRIUM
19:00-21:30	CJP Editorial Board Meeting / Réunion du comité de rédaction de la RCP	Mamma Teresa Ristorante

Wednesday, June 15 / mercredi 15 juinExhibitors / Exposants 08:30-16:00 STE ATRIUM

08:00-16:30	Congress Registration and Information / Inscription au congrès et information	STE ATRIUM (lower level)
07:30-08:30	PiC Editorial Board Meeting / Réunion du Comité de rédaction de La Physique au Canada	STE 5084
08:30-16:00	Exhibit booths open / Salle d'exposition ouverte	STE ATRIUM
08:30-10:30	W1-1 Superconductivity (DCMMP) / Supraconductivité (DPMCM)	STE G0103
08:30-10:30	W1-2 Energy Frontier: Standard Model and Higgs Boson (PPD) / Frontière d'énergie: modèle	CBY B205
08:30-10:30	W1-3 Testing Fundamental Symmetries I (DNP-PPD-DTP) / Tests de symétries fondamentales I (DPN-PPD-DPT)	CBY D207
08:30-10:30	W1-4 Radiation Therapy (DPMB-DNP) / Thérapie par rayonnement (DPMB-DPN)	CBY B012
08:30-10:30	W1-5 Solar Energy Materials and Solar Cells (DCMMP-DAMOPOC) / Matériaux pour l'énergie solaire et piles solaires (DPMCM-DPAMPC)	STE A0150
08:30-10:30	W1-6 Instrumentation for the Detection of Low-Level Radioactivity (DIMP) / Appareillage de détection de radioactivité de faible intensité (DPIM)	CBY D103
08:30-10:30	W1-7 History of Physics (DHP) / Histoire de la physique (DHP)	STE C0136
08:30-10:30	W1-8 Observations In Situ and Remote Sensing I (DASP) / Observations in situ et détection à distance II (DPAE)	STE J0106
08:30-10:30	W1-9 Nonlinear Optics and High Field Physics (DAMOPOC) / Optique non linéaire et physique en champs intenses (DPAMPC)	STE H0104
10:30-11:00	Health Break (with exhibitors) / Pause santé (avec exposants)	STE ATRIUM
11:00-11:30	W-MEDAL1 CAP Medal Talk - Carlos Silva, U. de Montréal (Brockhouse Medal Recipient / Récipiendaire de la médaille Brockhouse)	MRN 150
11:30-12:00	W-MEDAL2 CAP Medal Talk - Gilles Fontaine, U. de Montréal (Achievement Medal Recipient / Récipiendaire de la médaille pour contributions exceptionnelles)	MRN 150
12:00-13:00	DIMP-DIAP Annual Meeting / Assemblée annuelle DPIM-DPIA	STE C0136
12:00-13:00	Lunch / Dîner	
12:00-13:00	DCMMP Annual Meeting / Assemblée annuelle DPMCM	STE G0103
12:00-13:00	DPE Annual Meetings / Assemblée annuelle DEP	STE A0150
12:30-13:00	APCTP-CAP MOU Signing Ceremony and Information Session / Cérémonie de signature du PE APCTP-ACP et séance d'information	STE J0106
13:15-14:45	W2-1 Biomechanics and Fluid Dynamics (DPMB) / Biomécanique et dynamique des fluides (DPMB)	CBY B012
13:15-14:45	W2-2 Curriculum Development and Revitalization (DPE) / Développement et revitalisation des programmes (DEP)	STE C0136
13:15-14:45	W2-3 Remote Sensing (DASP) / Détection à distance (DPAE)	STE J0106
13:15-14:45	W2-4 Neutrino Physics (PPD-DNP-DTP) / Physique des neutrinos (PPD-DPN-DPT)	STE G0103
13:15-14:45	W2-5 Thin Films II (DCMMP-DSS) / Couches minces II (DPMCM-DSS)	CBY B205
13:15-14:45	W2-6 DCMMP PhD Thesis Award Competition / Compétition du Prix de thèse doctorale DPMCM	CBY D207
13:15-14:45	W2-7 Terahertz Science and Applications (DAMOPOC) / Sciences et applications des Terahertz (DPAMPC)	STE A0150
13:15-14:45	W2-8 Cosmic Frontier: Dark Matter IV (PPD) / Frontière cosmique: matière sombre IV (PPD)	CBY D103
14:45-15:15	Health Break (with exhibitors) / Pause santé (avec exposants)	STE ATRIUM
15:15-16:30	W3-1 Nuclear Structure III (DNP) / Structure nucléaire III (DPN)	CBY B205
15:15-16:30	W3-2 Teaching Physics to a Wider Audience (DPE) / Enseigner la physique à un auditoire plus vaste (DEP)	STE J0106
15:15-16:30	W3-3 Quantum Transport (DCMMP) / Transport quantique (DPMCM)	STE A0150
15:15-16:30	W3-4 Technical Exploits (DIAP-DIMP) / Prouesses techniques (DPIA-DPIM)	CBY B012
15:15-16:30	W3-5 Cosmology and Astrophysics (DTP-DIMP-PPD) / Cosmologie et astrophysique (DPT-DPIM-PPD)	CBY D207
15:15-16:30	W3-6 Cold and Trapped Atoms, Molecules and Ions (DAMOPOC) / Atomes, molécules et ions froids et piégés (DPAMPC)	STE G0103
16:40-17:00	CAP President's report / Rapport du président de l'ACP	STE G0103
17:00-18:30	CAP Annual General Meeting with election of Board and Advisory Council members/ Assemblée générale annuelle de l'ACP avec election des membres du c.a. et du conseil consultatif	STE G0103
18:45-20:00	Professional Practice Development / Développement d'exercice professionnel	STE A0150
18:45-20:00	CEWIP Annual Meeting & Reception / Assemblée annuelle CEFEP et réception	CBY D103
18:45-20:00	Friends of CAP" Dinner and Meeting / Souper et réunion des "Ami(e)s de l'ACP"	FSS 4004
18:45-20:00	Outreach "Tête-à-tête Liaisons externes	STE 5084
19:30-21:30	100 Years in 100 Minutes: A Century of Physics at the National Research Council of Canada / 100 ans en 100 minutes : Un siècle de physique au Conseil national de recherche du Canada	MRN 150

Thursday, June 16 / jeudi 16 juin

08:00-13:30	Congress Registration and Information / Inscription au congrès et information	STE ATRIUM (lower level)
07:30-08:30	CNILC Breakfast Meeting / Réunion du comité de liaison national canadien de l'UIPPA	STE 5084
08:30-10:30	R1-1 Interactive Teaching: Teaching with Technology (DPE) / Enseignement interactif et à l'aide de la technologie (DEP)	STE C0136
08:30-10:30	R1-2 Strongly Correlated Systems (DCMMP) / Systèmes fortement corrélés (DPMCM)	STE G0103

08:30-10:30	R1-3 Advances in Nuclear Physics and Particle Physics Theory (DTP-DNP-PPD) / Progrès en physique nucléaire et en physique des particules théoriques (DPT-DPN-PPD)	CBY B205
08:30-10:30	R1-4 Nuclear Physics in Medicine (DPMB-DNP-DIAP) / Physique nucléaire en médecine (DPMB-DPN-DPIA)	CBY B012
08:30-10:30	R1-5 Photonics II: Optoelectronics and Devices (DAMOPOC-DCMMP) / Photonique II : optoélectronique et dispositifs (DPAMPC-DPMCM)	STE H0104
08:30-10:30	R1-6 General Instrumentation I (DIMP) / Physique générale des instruments I (DPIM)	STE J0106
08:15-10:30	R1-7 Cosmic Frontier: Dark Matter V (PPD) / Frontière cosmique: matière sombre V (PPD)	CBY D207
10:30-11:00	Health Break (with exhibitors) / Pause santé (avec exposants)	STE ATRIUM
11:00-11:30	R-MEDAL1 CAP Medal Talk - Freddy Cachazo, Perimeter Institute (CAP-CRM Prize in Theoretical and Mathematical Physics Recipient / Récipiendaire Prix ACP-CRM en physique théorique et mathématique)	MRN 150
11:00-11:30	R-MEDAL2 CAP Medal Talk - Richard Boudreault, Chairman Polar Knowledge Canada (CAP-INO Medal for Outstanding Achievement in Applied Photonics)	CBY C03
11:30-12:00	R-MEDAL3 CAP Medal Talk - Akira Konaka, TRIUMF (CAP-TRIUMF Vogt Medal Recipient/Récipiendaire de la médaille Vogt de l'ACP-TRIUMF)	MRN 150
12:00-13:00	PPD Annual Meeting / Assemblée annuelle PPD	STE C0136
12:00-13:00	DHP Annual Meeting / Assemblée annuelle DHP	CBY B012
12:00-13:00	DTP Annual Meeting / Assemblée annuelle DTP	STE J0106
12:00-13:00	Lunch / Dîner	
13:15-14:45	R2-1 Computational Condensed Matter (DCMMP) / Matière condensée numérique (DPMCM)	STE H0104
13:15-14:45	R2-2 Energy Frontier: Further Developments (PPD) / Frontière d'énergie: développements futurs (PPD)	CBY B205
13:15-14:45	R2-3 Testing Fundamental Symmetries II (PPD-DNP-DTP) / Tests de symétries fondamentales II (PPD-DPN-DPT)	CBY D207
13:15-14:45	R2-4 Biophotonics (DPMB-DAMOPOC) / Biophotonique (DPMB-DPAMPC)	CBY B012
13:15-14:45	R2-5 Quantum Information and Quantum Optics (DCMMP-DAMOPOC) / Information quantique et optique quantique (DPMCM-DPAMPC)	STE G0103
13:15-14:45	R2-6 General Instrumentation II (DIMP) / Physique générale des instruments II (DPIM)	STE C0136
13:15-14:15	R2-7 Open Educational Resources Discussion (DPE) / Discussion sur les ressources éducatives libres (DEP)	STE J0106
14:45-15:00	Health Break / Pause santé	STE ATRIUM
15:00-17:00	R-PLEN1 CAP Best Student Presentations Final Competition / Compétition finale de l'ACP pour les meilleures communications étudiantes	MRN 150
17:00-17:45	R-PLEN Plenary Session - Paul Corkum, Univ. of Ottawa - Session plénière - Paul Corkum, Univ. d'Ottawa	MRN 150
18:30-22:00	Recognition Reception at the Shaw Centre / Réception de reconnaissance au Centre Shaw	Shaw Centre

Friday, June 17 / vendredi 17 juin

08:30-10:00	CAP Foundation Annual General Meeting / Assemblée annuelle de la Fondation de l'ACP	CBY A707A
10:00-11:30	CAP Foundation Board Meeting / Réunion du CA de la Fondation de l'ACP	CBY A707A
11:30-14:00	CAP Board Meeting (New and Old) / Réunion du CA de l'ACP (nouveau et ancien)	CBY A707A
14:00-15:15	Meeting of Local Organizing Committees 2016, 2017 + / Réunion des comités organisateurs locaux 2016, 2017 + Tours / Visites guidées	CBY A707A



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de physiciens et physiciennes

Animating the next
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2016 Detailed Congress Summary

(see page 18 for description of codes and abbreviations)

Legend:

(G): Graduate (U): Undergraduate (G/U)*: student in competition (i): invited speaker	CBY = Colonel By Building FSS = Faculty of Social Sciences MCD = MacDonald Hall MRN = Marion Hall STE = SITE Building
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Sunday, June 12

08h00 - 12h00	IPP Town Hall I (Chair: M. Roney, University of Victoria)	CBY C03 (cap. 205)
12h30 - 17h00	CAP Advisory Council Meeting (Old and New) (Chair: A. Sarty, President, CAP)	FSS 4004 (cap. 55)
13h30 - 14h05 S-SAPES	Joint CIMP-IPP NSERC SAPES Co-chair's Report – Adam Ritz (Chair: G. Huber, University of Regina)	CBY C03 (cap. 205)
14h05 - 14h30 S-CFI	Canada Foundation for Innovation and Subatomic Physics – Report from Olivier Gagnon (Chair: G. Huber, University of Regina)	CBY C03 (cap. 205)
14h30 - 15h05 S-TRIUMF	Joint CIMP-IPP TRIUMF Director's Report – Jonathan Bagger (Chair: G. Huber, University of Regina)	CBY C03 (cap. 205)
15h05 - 15h30 S-SNOLAB	Joint CIMP-IPP SNOLAB Director's Report – Nigel Smith (Chair: G. Huber, University of Regina)	CBY C03 (cap. 205)
15h30 - 16h15 S-LRP	Report from Subatomic Physics Long Range Plan Committee Chair – Dean Karlen (Chair: G. Huber, University of Regina)	CBY C03 (cap. 205)
16h15 - 16h30	Health Break	CBY C03 (cap. 205)
16h30 - 18h00	CIMP AGM (Chair: G. Huber, University of Regina)	CBY D103 (cap. 55)
16h30 - 18h00	IPP AGM (Chair: M. Roney, University of Victoria)	CBY C03 (cap. 205)
17h00 - 20h30	CAP Board of Directors Dinner Meeting (Old and New) (Chair: A. Sarty, President, CAP)	FSS 4004 (cap. 55)
18h00 - 19h00	CIMP Board Meeting (Chair: G. Huber, University of Regina)	CBY D103 (cap. 55)
19h30 - 21h30	IPP Inst. Members and Board of Trustees Meetings (Chair: M. Roney, University of Victoria)	CBY D103 (cap. 55)

Monday, June 13

08h00 - 09h30	IPP Town Hall II (Chair: M. Roney, University of Victoria)	CBY C03 (cap. 205)
09h30 - 10h20	<p style="text-align: center;">M-PLN</p> <p style="text-align: center;">Plenary Session - Start of Conference:</p> <p style="text-align: center;">MRN 150 (cap. 420)</p> <p style="text-align: center;">Hendrik Schatz, National Superconducting Cyclotron Laboratory, Michigan State University</p> <p style="text-align: center;"><i>Nuclear Astrophysics with Radioactive Beams - see pg. 11</i></p> <p style="text-align: center;">(Chair: A. Sarty, President, CAP)</p>	

Programme détaillé du Congrès 2016

(Voir page 18 pour une description des codes et abbréviations)

Légende :

(G) : 2e, 3e cycle

(U) : 1er cycle

(G/U)* : concurrent dans la compétition

(i) : conférencier invité

CBY = Édifice Colonel By

FSS = Faculté des Sciences sociales

MCD = MacDonald Hall

MRN = Marion Hall

STE = Édifice SITE

dimanche 12 juin

Consultation publique de l'IPP I (Président : M. Roney, University of Victoria)	CBY C03 (cap. 205)	08h00 - 12h00
Réunion du conseil consultatif (ancien et nouveau) de l'ACP (Président : A. Sarty, Président, ACP)	FSS 4004 (cap. 55)	12h30 - 17h00
Rapport conjoint ICPN-IPP du co-président du SEPSA du CRSNG – Adam Ritz (Président : G. Huber, University of Regina)	CBY C03 (cap. 205)	13h30 - 14h05 S-SAPES
Fondation canadienne pour l'innovation et la physique subatomique – Rapport d'Olivier Gagnon (Président : G. Huber, University of Regina)	CBY C03 (cap. 205)	14h05 - 14h30 S-CFI
Rapport conjoint ICPN-IPP du directeur de TRIUMF – Jonathan Bagger (Président : G. Huber, University of Regina)	CBY C03 (cap. 205)	14h30 - 15h05 S-TRIUMF
Rapport conjoint ICPN-IPP du directeur de SNOLAB – Nigel Smith (Président : G. Huber, University of Regina)	CBY C03 (cap. 205)	15h05 - 15h30 S-SNOLAB
Rapport du président du Comité du Plan à long terme en physique subatomique – Dean Karlen (Président : G. Huber, University of Regina)	CBY C03 (cap. 205)	15h30 - 16h15 S-LRP
Pause santé	CBY C03 (cap. 205)	16h15 - 16h30
AGA de l'ICPN (Président : G. Huber, University of Regina)	CBY D103 (cap. 55)	16h30 - 18h00
AGA de l'IPP (Président : M. Roney, University of Victoria)	CBY C03 (cap. 205)	16h30 - 18h00
Réunion et dîner du c.a. (ancien et nouveau) de l'ACP (Président : A. Sarty, Président, ACP)	FSS 4004 (cap. 55)	17h00 - 20h30
Réunion du Conseil l'ICPN (Président : G. Huber, University of Regina)	CBY D103 (cap. 55)	18h00 - 19h00
Réunions des membres inst. et du conseil de l'IPP (Président : M. Roney, University of Victoria)	CBY D103 (cap. 55)	19h30 - 21h30

lundi 13 juin

Consultation publique de l'IPP II (Président : M. Roney, University of Victoria)	CBY C03 (cap. 205)	08h00 - 09h30
M-PLÉN MRN 150 (cap. 420)	Session plénière - Ouverture du congrès : Hendrik Schatz, National Superconducting Cyclotron Laboratory, Michigan State University <i>L'astrophysique nucléaire à l'aide de faisceaux radioactifs - voir p. 11</i> (Président : A. Sarty, Président, ACP)	09h30 - 10h20

Monday, June 13 (cont'd)

TIME	CBY B012 (cap. 69)	CBY B205 (cap. 102)	CBY D103 (cap. 55)	CBY C03 (cap. 205)
	<p>M1-1 Newish-faculty Workshop: So You Think You Can Teach Physics! (DPE) / Atelier pour nouveaux professeurs : vous pensez pouvoir enseigner la physique! (DEP)</p> <p>Chair/Prés. : Calvin Kalman, Concordia University</p>	<p>M1-2 Material Growth and Processing (DCMMP) / Croissance et traitement des matériaux (DPMCM)</p> <p>Chair/Prés : Mohamed Siaj, UQAM</p>	<p>M1-3 Theory, Modelling, and Forecasting I (DASP) / Théorie, modélisation et prévisions I (DPAE)</p> <p>Chair/Prés. : David Knudsen, University of Calgary</p>	<p>M1-4 Neutrinoless Double Beta Decay I (PPD-DNP-DTP) / Double désintégration beta sans neutrino I (PPD-DPN-DPT)</p> <p>Chair/Prés. : Tony Noble, Queen's University</p>
10h30	<p>This hands-on workshop lead by Chris Whittaker will provide "how to tips" on implementing physics education research literature to transform your classroom. Participants will take away ideas they can "easily" implement in their classroom on topics such as active learning techniques, classroom management tips, do's and don'ts of teaching and what makes a "great" physics teacher. This workshop is not intended only for new faculty but is also suitable for a general audience.</p> <p><i>Cet atelier pratique, dirigé par Chris Whittaker, fournira des conseils pratiques sur la façon d'intégrer la littérature sur recherche en enseignement de la physique pour transformer votre salle de classe. Les participants repartiront avec des idées qu'ils pourront facilement mettre en œuvre dans leur salle de classe sur des sujets tels que les techniques d'apprentissage actif, des conseils de gestion de la classe, à faire et à ne pas faire dans l'enseignement et ce qui fait un "grand" professeur de physique. Cet atelier ne vise pas seulement les nouveaux professeurs, mais s'adresse également au public général.</i></p>	<p>(i) Hemmer, Eva <i>Upconverting and Near-Infrared Emitting Nanoparticles: From Synthetic Strategies to Potential Applications</i></p>	<p>Dimitrakoudis, Stavros <i>The "Impenetrable Barrier" Revisited: Bursting the VLF Bubble</i></p>	<p>(i) Brunner, Thomas <i>Neutrino-less double beta decay search with EXO-200 and nEXO</i></p>
10h45			<p>Hocking, Wayne <i>Determination of global-scale diffusion coefficients in the stratosphere using a new model of local mixing</i></p>	
11h00		<p>(i) Luican-Mayer, Adina <i>Custom low-dimensional material systems explored from atom to bulk</i></p>	<p>Martynenko, Oleg <i>Development of the Canadian Ionosphere and Atmosphere Model</i></p>	<p>(G)* Lan, Yang <i>Ba-ion extraction and identification from high pressure Xenon gas for nEXO</i></p>
11h15			<p>Prikryl, P. <i>A link between high-speed solar wind streams and extratropical cyclones</i></p>	
11h30		<p>(G)* Wijesekara, Himasha <i>Atomic Force Microscopy Study of the Effect of Poly(aspartic acid) on Calcium Oxalate</i></p>	<p>Perron, Patrick <i>Farley-Buneman waves at large aspect angles</i></p>	
11h45		<p>Poduska, Kristin <i>Maximizing electrophoretic mobility differences among polymorphic materials</i></p>	<p>Dimitrakoudis, Stavros <i>Magnetosphere-Ionosphere Coupling at Substorm Expansion Phase Onset</i></p>	
	<p>Session Ends / Fin de la session</p>	<p>Session Ends / Fin de la session</p>	<p>Session Ends / Fin de la session</p>	<p>Session Ends / Fin de la session</p>
12h00 to 13h00	<p>STE C0136 (cap. 57)</p> <p>New Faculty Lunch Meeting with NSERC (Chair : Donna Strickland, Director, Academic Affairs, CAP)</p>			
	<p>CBY C03 (cap. 205)</p> <p>Science Policy Workshop (Chair : Kristin Poduska, Director, Science Policy, CAP)</p>			
	<p>Lunch</p>			

lundi 13 juin (suite)

CBY D207 (cap. 102)	STE C0136 (cap. 57)	STE G0103 (cap. 155)	HEURE
M1-5 Soft Matter and Polymers (DCMMP-DPMB) / Matière molle et polymères (DPMCM-DPMB) Chair/Prés. : Naomi Matsuura, University of Toronto	M1-6 Laser-Plasma Interactions (DPP-DAMOPC) / Interactions laser-plasmas (DPP-DPAMPC) Chair/Prés. : Thomas Brabec, University of Ottawa	M1-7 Atomic and Molecular Spectroscopy and Precision Measurements I (DAMOPC) / Spectroscopie atomique et moléculaire et mesures de précision I (DPAMPC) Chair/Prés. : Alan Madej, NRC/ MSS, York University, University of Ottawa	
(i) Ramchandran, Arun <i>On the coalescence of two drops undergoing a head-on collision in a Bingham fluid</i>	(i) Varin, Charles <i>MicPIC perspectives on light-matter interactions in strongly-coupled systems</i>	(i) Vutha, Amar <i>Optical atomic clocks for gravitational wave physics</i>	10h30
			10h45
(i) Gharbi, Mohamed Amine <i>Assembly of Gold Nanoparticles in Blue Phase Liquid Crystals: Towards New Generation of Soft Nanocrystals</i>	(i) Bhardwaj, Ravi <i>Dynamics of ultrafast laser processing of materials</i>	Predoi-Cross, Adriana <i>Experimental and Theoretical He-Broadened Line Parameters of Carbon Monoxide in the Fundamental Band</i>	11h00
		Predoi-Cross, Adriana <i>Self- and Hydrogen-Broadened Line Parameters of Carbon Monoxide in the First Overtone Band</i>	11h15
(G)* Hopkins, Cameron <i>Vibrating-Wire Rheology</i>	Session Ends / Fin de la session	(G) Manalo, Jacob <i>Polarizability of Helium for the 2S Triplet State</i>	11h30
(G)* Sbeih, Suhad <i>Deuterium NMR and Rheology of Microgel Colloids at Ambient and High Pressure</i>		Xu, Li-Hong <i>FTIR Synchrotron Spectroscopy of the Asymmetric C-H Stretching Bands of Methyl Mercaptan CH₃-SH — A Perplexity of Perturbations</i>	11h45
Session Ends / Fin de la session		Session Ends / Fin de la session	
Dîner-rencontre des nouveaux professeurs avec le CRSNG (Présidente : Donna Strickland, Directrice, Affaires académiques, ACP)		STE C0136 (cap. 57)	12h00 à
Atelier Politique scientifique (Présidente : Kristin Poduska, Directrice, Politique scientifique, ACP)		CBY C03 (cap. 205)	13h00
Dîner			

Monday, June 13 (cont'd)

TIME	CBY B012 (cap. 69)	CBY B205 (cap. 102)	CBY D207 (cap. 102)	STE C0136 (cap. 57)
	M2-1 Nuclear Structure I (DNP) / Structure nucléaire I (DPN) Chair/Prés. : Dennis Muecher, University of Guelph	M2-2 Molecular Biophysics (DPMB) / Biophysique moléculaire (DPMB) Chair/Prés. : Francis Lin, University of Manitoba	M2-3 Ultrafast and Time- Resolved Processes (DAMOPC) / Procédés ultrarapides et résolus dans le temps (DPAMPC) Chair/Prés. : Lindsay Leblanc, University of Alberta	M2-4 Mathematical Physics (DTP) / Physique mathématique (DPT) Chair/Prés. : Jean-François Fortin, Université Laval
13h00	(G)* Park, Joochun (Jason) <i>Half-life measurements of nuclei around the doubly-magic 100Sn</i>	(i) Lu, Qing-Bin <i>Femtomedicine in Cancer: Discovery of New Antitumor Molecules for Natural Targeted Chemotherapy and Radiotherapy of Cancers</i>	(i) Dolgaleva, Ksenia <i>Nonlinear Optical Response of Arrays of Metamolecules: New Observations and Ways of Enhancement</i>	(i) McGrath, Paul <i>A Farewell to Symmetries: Quasilocal Frames in General Relativity</i>
13h15	(G)* Cruz, Steffen <i>Single Particle Structure and Shapes of Exotic Sr Isotopes</i>			
13h30	(G)* Bidaman, Harris <i>A Study on Low Spin States in 154Gd Using (p,p') Reaction</i>	Galstian, Tigran <i>Observation of coupling between microscopic diffusion and macroscopic elasticity in soft matter</i>	(G)* van der Kolk, Jarno Nicolaas <i>Effects of Refractive Index Mismatch on Stimulated Raman Scattering And Coherent Anti- Stokes Raman Scattering Microscopy</i>	Marzlin, Karl-Peter <i>The Moyal Equation for open quantum systems</i>
13h45	(G)* Burbadge, Christina <i>Investigating the nature of excited O^{S+} states populated via the ¹⁶²Er(p,t) reaction</i>	(U)* Khondker, Adree <i>The Lipid Bilayer Provides a Site for Cortisone Crystallization at High Cortisone Concentrations</i>	(G)* Saaltink, Rebecca <i>Super-Critical Phase-Matching for Generation of Structured Light Beams</i>	(G)* Hickey, Joseph <i>Citation Networks in Law: Detection of Hierarchy and Identification of Key Events</i>
14h00	(G)* Turko, Joseph <i>Simulating the DESCANT Neutron Detection Array with the Geant4 Monte Carlo Toolkit</i>	(G)* Sean, David <i>Coarse-grained simulations of highly driven DNA translocation from a confining nanotube</i>	(G)* Runyon, Matthew <i>A Method to Arbitrarily Transform the Polarization of Light Variably Across a Beam</i>	Session Ends / Fin de la session
14h15	Session Ends / Fin de la session	(G)* Himbert, Sebastian <i>Organization of Nucleotides in Different Environments: Implications for the Formation of First RNA under Prebiotic Conditions</i>	Ko, Dong Hyuk <i>Single-shot holographic measurement of attosecond pulses and the time-dependent field of an ultrashort pulse</i>	
14h30		Session Ends / Fin de la session	Session Ends / Fin de la session	
14h45	M-MEDAL MRN 150 (cap. 420)	Roger Melko, University of Waterloo / Perimeter Institute (CAP Herzberg Medal Recipient) See pg. 11 for details. (Chair: A. Sarty, CAP President)		
15h15	Health Break (STE ATRIUM)			

lundi 13 juin (suite)

MCD 146 (cap. 125)	CBY D103 (cap. 55)	STE G0103 (cap. 155)	HEURE
M2-5 Energy Frontier: SUSY and Exotics (PPD) / Frontière d'énergie: supersymétrie et particules exotiques (PPD) Chair/Prés. : Brigitte Vachon, McGill University	M2-6 Theory, Modelling, and Forecasting II (DASP) / Théorie, modélisation et prévisions II (DPAE) Chair/Prés. : Patrick Perron, Royal Military College of Canada	M2-7 Carbon-based Nanomaterials (DCMMP-DSS) / Nanomatériaux à base de carbone (DPMCM-DSS) Chair/Prés. : Rafik Naccache, Concordia University	
(i) Gillberg, Dag <i>Operation and Performance of the ATLAS detector in LHC Run II</i>	(i) Lovejoy, Shaun <i>Harnessing butterflies for climate closure and for improved monthly, seasonal, and interannual forecasts</i>	(i) Sjaï, Mohamed <i>2D Materials Growth: Applications and Challenges</i>	13h00
			13h15
(G)* de Jong, Samuel <i>Helium-3 thermal neutrons counters in the SuperKEKB commissioning detector</i>	(G)* Cushley, Alex <i>The importance of an accurate magnetic field for the estimation of Faraday rotation from total electron content.</i>	(G) Navaeipour, Parvin <i>Terahertz Response of Monolayer Graphene: Velocity Gauge Vs Length Gauge</i>	13h30
(G)* Beaulieu, Alexandre <i>Measurement of the electromagnetic background radiation during SuperKEKB commissioning</i>	(G)* Themens, David <i>The Empirical Canadian High Arctic Ionospheric Model (E-CHAIM): NmF2 and hmF2 specification</i>	Korkusinski, Marek <i>Spontaneous polarization of the two-dimensional electron gas in WS₂</i>	13h45
(G)* Trepanier, Hubert <i>Search for supersymmetry in final state with jets and two same-sign leptons or three leptons with the ATLAS detector.</i>	(G)* McCaffrey, Anthony <i>Calculation and Analysis of High Rate Total Electron Content in the Canadian High Arctic</i>	(G)* Kazemian, Sina <i>Contactless thermal conductivity imaging in nanoscale semiconductors</i>	14h00
(G)* Sherafati, Nima <i>Collecting events based on jet substructure with the ATLAS detector</i>	(G)* Athieno, Racheal <i>A Neural Network (NN)-based foF2 model for a single station in the polar cap</i>	Session Ends / Fin de la session	14h15
Session Ends / Fin de la session	Session Ends / Fin de la session		14h30
Roger Melko, University of Waterloo / Perimeter Institute (Récipiendaire de la médaille Herzberg de l'ACP) Voir p. 11 pour les détails. (Président : A. Sarty, Président de l'ACP)		M-MEDAL MRN 150 (cap. 420)	14h45
Pause santé (STE ATRIUM)			15h15

Monday, June 13 (cont'd)

TIME	CBY B205 (cap. 102)	CBY D207 (cap. 102)	STE C0136 (cap. 57)	STE G0103 (cap. 155)
15h45-17h30	CAP-NSERC Liaison Committee (LC) Business Meeting (Chair: W. Whelan, LC Chair)			
	M3-1 Nuclear Astrophysics (DNP) / Astrophysique nucléaire (DPN) Chair: Barry Davids, TRIUMF	M3-2 Atomic and Molecular Spectroscopy and Precision Measurements II (DAMOPC) / Spectroscopie atomique et moléculaire et mesures de précision II (DPAMPC) Chair: Amar Vutha, University of Toronto	M3-3 Fields and Strings (DTP) / Champs et cordes (DPT) Chair: Luc Marleau, Université Laval	M3-4 Materials Characterization: Microscopy and Imaging (DCMMP) / Caractérisation des matériaux: microscopie et imagerie (DPMCM) Chair: Arun Ramchandran, University of Toronto
15h45	(i) Caballero, Olga <i>Neutron star mergers: neutrino emission and nucleosynthesis</i>	(i) Madej, Alan <i>Welcome to the New Age: Realization of an Ultra-Accurate, Single Ion Clock at the Quantum Mechanical Stability Limit</i>	(i) Paranjape, Manu <i>Induced False Vacuum Decay by Topological Solitons</i>	(i) Matsuura, Naomi <i>Colloidal systems for smarter cancer imaging and adaptive therapy</i>
16h00				
16h15	(i) Spyrou, Artemis <i>Constraining neutron capture rates far from stability and astrophysical implications</i>	Predoi-Cross, Adriana <i>Ro-Vibrational Emission Spectra of DCN Revisited</i>	Fortin, Jean-Francois <i>Conformal Bootstrap in Embedding Space</i>	(G)* Macdonald, Andrew <i>Magnetic Dipole-Dipole Sensing at the Atomic Scale</i>
16h30		Predoi-Cross, Adriana <i>The Oxygen A-Band Spectra Revisited</i>	(G)* Smith, Alexander <i>Relativistic quantum reference frames</i>	(G) Beniac, Thomas <i>"Macroporous Silicon as an IR Filter"</i>
16h45	(G)* Orford, Rodney <i>Phase-imaging mass measurements with the Canadian Penning trap mass spectrometer</i>	Lees, Ronald M. <i>FTIR Synchrotron Spectroscopy of the Lower Vibrational Modes of Methyl Mercaptan at the Canadian Light Source</i>	(G)* Ahmed, Jamil <i>Quantum tunneling of Fermions from Black Strings</i>	(i) Naccache, Rafik <i>Imaging and Temperature Sensing using Submillimeter Radiation</i>
17h00	(G)* Bernier, Nikita <i>Decay Spectroscopy of Neutron-Rich Cd Around the N = 82 Shell Closure</i>	<p style="text-align: center;">Session Ends / Fin de la session</p>	(G)* Gobeil, Yan <i>Constraints on the spectrum of W algebras</i>	
17h15	<p style="text-align: center;">Session Ends / Fin de la session</p>		<p style="text-align: center;">Session Ends / Fin de la session</p>	<p style="text-align: center;">Session Ends / Fin de la session</p>
17h30	Welcome BBQ Reception (STE lawn)			
19h00 to 22h00	M-HERZ Shaw Centre (cap. 600) (Chair: A. Sarty, President, CAP)	Victoria Kaspi, McGill University <i>The Cosmic Gift of Neutron Stars</i> See pg. 10 for details Followed by a reception		Herzberg Memorial Public Lecture

lundi 13 juin (suite)

Réunion d'affaires du comité de liaison (CL) ACP-CRSNG (Chair: W. Whelan, Président du CL)			15h45 -17h30
MCD 146 (cap. 125)	CBY B012 (cap. 69)	CBY D103 (cap. 55)	HEURE
M3-5 Cosmic frontier: Dark matter I (PPD) / Frontière cosmique: matière sombre I (PPD) Chair: Ian Lawson, SNOLAB	M3-6 Computational Biophysics: Methods and Concepts (DPMB) / Biophysique numérique : méthodes et concepts (DPMB) Chair: Francis Lin, University of Manitoba	M3-7 Atmospheric and Space Physics I (DASP) / Physique atmosphérique et de l'espace I (DPAE) Chair: Shaun Lovejoy, McGill University	
(i) Noble, Tony <i>Recent Results and Future Plans for Dark Matter Searches with PICO</i>	(i) Goyal, Sidhartha <i>Finding the rules of blood regeneration</i>	(i) Vernon, Frank <i>The Earth's Hum Comes from the Sun</i>	15h45
			16h00
(G)* Norman-Hobbs, Simon <i>Study and Development of Pulse-shape Discrimination Firmware for Background Mitigation in the DEAP-3600 Experiment</i>	Linhananta, Apichart <i>Computer Simulation Model of Polymorphisms of Beta-Amyloid Crystals</i>	Cluff, Daniel <i>Advancing Methane Mitigation by Understanding the Physics and Chemical Kinetics of Ultra-lean Combustion Dynamics</i>	16h15
***WITHDRAWN** (G)* Broerman, Benjamin <i>Application of Wavelength Shifter to the Acrylic Vessel in the DEAP-3600 Dark Matter Search</i>	(i) Wallin, Stefan <i>Exploring conformational switching in proteins with coarse-grained molecular simulations</i>	(G) Heusen, Martin <i>The Influence of Turbulence on the Transport of Energetic Particles</i>	16h30
(G)* Amole, Chanpreet <i>Improved dark matter search results from PICO-2L Run 2</i>		(G)* Heusen, Martin <i>Simulations of Energetic Particles Interacting with Dynamical Magnetic Turbulence</i>	16h45
(G) Odell, Roger <i>Two-Hit and Two-Track Resolution of a Micromegas TPC with a Resistive Layer Including the Effects of Charge Induction</i>	(G) Binette, Vincent <i>All-Atoms simulations of Huntingtin's N-terminal: solvent and membrane effects</i>	Connors, Martin <i>A Prototypical Substorm with Conjugate Ground and Space Data</i>	17h00
Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	17h15
Réception d'accueil avec BBQ (Pelouse de STE)			17h30
M-HERZ Shaw Centre (cap. 600) (Chair: A. Sarty, Président, ACP)	Victoria Kaspi, McGill University <i>The Cosmic Gift of Neutron Stars</i> Voir p. 9 pour les détails. Suivi d'une réception	Conférence commémorative publique Herzberg	19h00 à 22h00

Tuesday, June 14

07h30-08h30	STE 5084 (cap. 24)	CAP Science Policy Committee Breakfast Meeting (Chair: K. Poduska, Director, Science Policy, CAP)		
08h15-17h15	MCD 146 (cap. 125)	Teachers' Day see pg. 15 for details		
TIME	CBY C03 (cap. 205)	CBY D103 (cap. 55)	CBY D207 (cap. 102)	STE C0136 (cap. 57)
	T1-1 Medical Imaging (DPMB) / Imagerie médicale (DPMB) Chair/Prés. : Melanie Martin, University of Winnipeg	T1-2 Lab Revitalisation: Innovative and Distance Undergraduate Labs (DPE) / Revitalisation de labos : laboratoires de premier cycle innovateurs et à distance (DEP) Chair/Prés. : Martin Williams, University of Guelph	T1-3 Materials Characterization: Electrical, Optical, Magnetic, Thermal (DCMMP) / Caractérisation des matériaux: électrique, optique, magnétique et thermique (DPMCM) Chair/Prés. : Eva Hemmer, University of Ottawa	T1-4 Ground-based and In Situ Observations I (DASP) / Observations sur terre et in situ I (DPAE) Chair/Prés. : Daniel Cuff, University of Exeter
08h30	(i) Sharp, Jonathan <i>Magnet and Radiofrequency Technology for Low Cost Magnetic Resonance Imaging</i>	Ahrensmeier, Daria <i>How redesigning our first-year labs grew into a "Gesamtkunstwerk" in Physics Education</i>	(i) Sham, Tsun <i>Photon-in Photon-out Spectroscopy of Functional Materials using Synchrotron Radiation</i>	James, Gordon <i>Tranionospheric Radio Propagation Research with CASSIOPE/ePOP</i>
08h45		Rollin, Etienne <i>Astronomy in the undergraduate advanced laboratory: Studying delta-Scuti variable stars</i>		Perry, Gareth <i>A selection of results from e-POP RRI polarimetry experiments</i>
09h00	(G)* Shaswary, Elyas <i>Frequency-Domain Synthetic Aperture Focusing Techniques for Imaging with Single-Element Focused Transducers</i>	Blokland, Ian <i>Introductory Experiments from Scratch</i>	(i) Cui, Xiaoyu <i>Evolution of electronic structure on transition metal and transition metal doped titanium disulphide by high resolution photoemission spectroscopy study</i>	Connors, Martin <i>Initial Results from the AUTUMNX Magnetometer Array</i>
09h15	(G)* Maraghechi, Borna <i>Feasibility of noninvasive temperature estimation using acoustic harmonics</i>	(i) Selen, Mats <i>From Particle Physics to Education: The Role of Tinkering</i>		Oyekola, Oyedemi <i>Plasma motion in the equatorial ionospheric F2-layer</i>
09h30	(G)* Alsop, Richard <i>Cholesterol Expels Ibuprofen from the Hydrophobic Lipid Membrane Core</i>		(G)* Cadogan, Carolyn <i>Enhancing the Luminescence of Silicon Nanoclusters embedded in Silicon Nitride</i>	Knudsen, David <i>Swarm Canada: Accomplishments and Opportunities</i>
09h45	Session ends / Fin de la session	Session ends / Fin de la session	(G)* do Amaral Oliveira, Amintor Dusko <i>Impurity-based Quantum Circuits in Si</i>	Burchill, Johnathan <i>Using Langmuir Probe and faceplate current measurements to validate Swarm Electric Field Instrument bulk ion drifts</i>
10h00			Session ends / Fin de la session	Session ends / Fin de la session
Health Break with Exhibitors (STE ATRIUM)				
10h30-11h00	T-MEDAL MRN 150 (cap.420) (Chair: A. Sarty, President, CAP)	James Fraser, Queen's University <i>Teaching Undergraduate Physics Medal Recipient - see pg. 11</i>		
11h00	T-NSERC1 MRN 150 (cap. 420) (Chair: A. Sarty, President, CAP)	Plenary Session – NSERC 2020 Strategic Plan by Mario Pinto, President		
11h30	T-NSERC2 MRN 150 (cap. 420) (Chair: D. Strickland, DAA, CAP)	Plenary Session – Report from NSERC EG Chair Report, Li-Hong Xu		
11h45	T-NSERC3 MRN 150 (cap. 420) (Chair: D. Strickland, DAA, CAP)	Plenary Session – CAP-NSERC Liaison Committee Report by W. Whelan, Chair LC		

mardi 14 juin

STE 5084 (cap. 24)				Petit-déjeuner-rencontre du Comité de la politique scientifique de l'ACP (Présidente : K. Poduska, Directrice, Politique scientifique, ACP)		07h30 -08h30					
MCD 146 (cap. 125)				Journée des enseignants voir p. 15 pour les détails				08h15 -17h15			
STE G0103 (cap. 155)		CBY B205 (cap. 102)		STE J0106 (cap. 57)		CBY B012 (cap. 69)		HEURE			
T1-5 Neutrinoless Double Beta Decay II (PPD-DNP-DTP) / Double désintégration beta sans neutrino II (PPD-DPN-DPT) Chair/Prés. : Thomas Brunner, McGill University		T1-6 Nanostructured and Functional Nanomaterials (DCMMP-DIAP) / Nanomatériaux nanostructurés et fonctionnels (DPMCM-DPIA) Chair/Prés. : Adina Luican-Mayer, University of Ottawa		T1-7 Mass spectrometry in nuclear waste management and control at the border (DIAP-DIMP) / Spectrométrie de masse dans la gestion des déchets nucléaires et surveillance à la frontière (DPIA-DPIM) Chair/Prés. : Kirk Michaelian, Natural Resources Canada		T1-8 General Relativity (DTP) / Relativité générale (DPT) Chair/Prés. : Gabor Kunstatter, University of Winnipeg					
(i) Hill, Richard <i>Towards new discoveries with neutrinos and dark matter</i>		(i) Variola, Fabio <i>Functional nanostructured surfaces for biomedical applications</i>		Charles, Christopher <i>Measurement of ²³⁶U in Biota by accelerator mass spectrometry.</i>		(i) Pfeiffer, Harald <i>Observation of gravitational waves from a binary black hole merger</i>		08h30			
				Francisco, Barbara <i>Optimization of a methodology to determine ⁹⁰Sr in biota and water samples by ICP MS QQQ and LSC</i>				08h45			
Ford, Richard <i>A Scintillator Purification Plant and Fluid Handling System for SNO+</i>		Harden, James L. <i>XPCS studies of shear-induced rejuvenation and nano-plasticity in soft glassy materials</i>		(G) Guerboukha, Hichem <i>Contactless Real-time Dynamic Measurements with THz waves and a Rotary Delay Line</i>		(G)* Meiers, Michael <i>Universal Horizons in Collapsing Reissner-Nordstrom Metrics</i>		09h00			
Caden, Erica <i>Commissioning the SNO+ Detector</i>		Rogers, Michael <i>X-ray Speckle Measurements of a Shape Memory Alloy in Training</i>		Gagné, Alexandre <i>Simultaneous Determination of Th and U in Urine by ICP-MS</i>		(G)* Mbarek, Saoussen <i>Thermal Mediated Phase Transition in Gauss-Bonnet Gravity</i>		09h15			
(U)* Cudmore, Elspeth <i>Characterization of backgrounds in lucas cells</i>		(i) Evstigneev, Mykhaylo <i>Theory of Nanoscale Friction</i>		Session ends / Fin de la session		(G)* Brenna, Wilson <i>Numerically Obtaining the Black Hole Universality Class</i>		09h30			
Gornea, Razvan <i>Neutrino-less double beta decay search with Xe-136 and Ba ion tagging R&D</i>						(G)* Hennigar, Robie <i>Reentrant phase transitions and van der Waals behaviour for hairy black holes</i>		09h45			
Session ends / Fin de la session		Session ends / Fin de la session		Session ends / Fin de la session		Session ends / Fin de la session		10h00			
Pause santé avec les exposants (STE ATRIUM)											
T-MEDAL MRN 150 (cap.420) (Prés. : A. Sarty, Président de l'ACP)		James Fraser, Queen's University (Récipiendaire de la médaille de l'enseignement de la physique au premier cycle) - voir p. 11						10h30 -11h00			
T-NSERC1 MRN 150 (cap. 420) (Prés. : A. Sarty, Président de l'ACP)		Session plénière – Plan stratégique de 2020 du CRSNG par Mario Pinto, Président								11h00	
T-NSERC2 MRN 150 (cap. 420) (Prés. : D. Strickland, DAA, ACP)		Session plénière – Rapport de la présidente du GE-CRSNG, Li-Hong Xu								11h30	
T-NSERC3 MRN 150 (cap. 420) (Prés. : D. Strickland, DAA, ACP)		Session plénière – Rapport du Comité de liaison ACP- CRSNG par le président, W. Whelan								11h45	

Tuesday, June 14 (cont'd)

12h00-13h00	CBY E016 (cap. 31)	IPP Scientific Council Meeting (Chair : M. Roney, University of Victoria)	CBY D207 (cap. 102)	NSERC's Research Partnership Programs (Chair: W. Whelan) ends at 13h15
LUNCH	Annual Meeting for DAMOPC CBY B012		Annual Meeting for DNP STE J0106	Annual Meeting for DASP STE C0136
	Annual Meeting for DPP CBY D103		Annual Meeting for DPMB STE G0103	
TIME	CBY D103 (cap. 55)	CBY C03 (cap. 205)	CBY B205 (cap. 102)	STE C0136 (cap. 57)
	T2-1 Nuclear Structure II (DNP) / Structure nucléaire II (DPN) Chair/Prés. : Cornia Andreiou, Simon Fraser University	T2-2 Nonlinear Dynamics (DPMB) / Dynamiques non linéaires (DPMB) Chair/Prés. : Melanie Martin, University of Winnipeg	T2-3 Cosmic Frontier: Dark Matter II (PPD) / Frontière cosmique: matière sombre II (PPD) Chair/Prés. : Fabrice Retiere, TRIUMF	T2-4 Ground-based and In Situ Observations II (DASP) / Observations sur terre et in situ II (DPAE) Chair/Prés. : Martin Connors, Athabasca University
13h15	(i) Kanungo, Rituparna <i>Exploring the exotic landscape with direct reactions</i>	de Haan, Hendrick <i>Nonlinear Dynamics for the Translocation of fd Virus through Nanopores: Euler Buckling at the Nanoscale</i>	(i) Boulay, Mark <i>DEAP-3600 Dark Matter Search with Argon</i>	(i) Nokes, Charles D. A. <i>Studying the Lower Thermosphere with Alberta's First Cube Satellite: Ex-Alpha 1</i>
13h30		(G)* Trevisanutto, Joshua <i>Development of a tapered fiber probe</i>		
13h45	(G)* Jigmeddorj, Badamsambuu <i>High-Statistics β/EC-Decay Study of ^{122}Xe</i>	(i) Longtin, Andre <i>Nonlinear dynamics of sensory focussing</i>	(G)* Underwood, Ryan <i>CDMSlite Run 2 Results</i>	(G)* Shen, Yangyang <i>Statistical investigation of anisotropic ion temperature enhancements observed by the CASSIOPE/e-POP satellite</i>
14h00	Starosta, Krzysztof <i>Doppler-shift lifetime measurements in ^{94}Sr using the TIGRESS Integrated Plunger</i>		(G)* Vazquez de Sola, Francisco Andres <i>Understanding the signal induced within a gaseous spherical detector used by the NEWS experiment</i>	(G)* Wu, Jiashu <i>Field-aligned currents associated with multiple arc systems</i>
14h15	(G)* Williams, Jonathan <i>Study of ^{22}Ne and ^{28}Mg excited states using fusion-evaporation and Doppler shift measurements</i>	Joós, Bela <i>Modeling the high frequency electric organ discharge in the weakly electric fish, <i>Eigenmannia</i></i>	(G)* Girard, Frédéric <i>The PICO 0.1 bubble chamber calibration</i>	Danskin, Donald <i>Monitoring HF transmissions with the e-POP RRI instrument on the CASSIOPE Satellite</i>
14h30	(G)* Zidar, Tammy <i>Investigating the nuclear structure of ^{33}Al through β^- decay of ^{33}Mg to probe the island of inversion</i>	Bergevin, Christopher <i>The active ear: A ring of fire</i>	(G)* Mitra, Pitam <i>Characterization and mitigation of particulate sources of backgrounds in the PICO-60 experiment</i>	(G)* Yang, Bing <i>Using the motion of Pulsating Aurora Patches to investigate the change in magnetospheric convection</i>
14h45	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
15h00	T-PLEN MRN 150 (cap. 420) Chair: M. Martin, Chair DPMB	Bruker BioSpin Plenary Session: Russell Jacobs, Beckman Institute / Caltech Brain Imaging Center California Institute of Technology <i>Uses and abuses of μMRI and simultaneous $\mu\text{PET}/\mu\text{MRI}$: A Chemists talks with Physicists about Biology - see pg. 12</i>		
15h45	Health Break with Exhibitors (STE ATRIUM)			

mardi 14 juin (suite)

Assemblée annuelle DPAMPC CBY B012		Assemblée annuelle DPN STE J0106		Assemblée annuelle DPAE STE C0136	DINER
Assemblée annuelle DPP CBY D103		Assemblée annuelle DPMB STE G0103			
STE G0103 (cap. 155)	CBY D207 (cap. 102)	CBY B012 (cap. 69)	STE J0106 (cap. 57)	HEURE	
T2-5 Photonics I: Applications (DAMOPC- DPP) / Photonique I : applications (DPAMPC-DPP) Chair/Prés. : Paul Barclay, University of Calgary	T2-6 Condensed Matter Theory (DTP-DCMMP) / Théorie de la matière condensée (DPT-DPMCM) Chair/Prés. : Pawel Hawrylak, University of Ottawa	T2-7 Gravity, Astrophysics and Cosmology (DTP) / Gravité, astrophysique et cosmologie (DPT) Chair/Prés. : Svetlana Barkanova, Acadia University	T2-8 Doing Physics-doing Gender: Should gender issues be of any importance in the physics community? (CEWIP) / Physique et genre : les questions de genre devraient-elles avoir de l'importance dans la communauté de physique? (CEFEP) Chair/Prés. : Shohini Ghose, Wilfrid Laurier University		
(i) Joly, Nicolas <i>Generation of nonclassical states of light using photonic crystal fibers</i>	(i) Lagowski, Jolanta <i>Investigations of the Intermolecular Interactions between Organic Conjugated Monomers, and Conjugated Oligomers and Nanotubes Using Dispersion-Corrected DFT</i>	(i) Ghezalbash, Masoud <i>New exact solutions to the Einstein field equations</i>	(i) Heron, Paula <i>Is "interactive" teaching sufficient to promote conceptual development in physics?</i>	13h15	
				13h30	
(i) Poon, Joyce <i>Integrated silicon photonics for quantum communication</i>	(G) Boudreault, Christian <i>The phase diagram of the Blume- Capel-Haldane-Ising spin chain</i>	Edey, Ariel <i>Generating Einstein gravity, cosmological constant and Higgs mass from restricted Weyl invariance</i>	Vachon, Brigitte <i>Report on the 2016 Canadian Conference for Undergraduate Women in Physics (CCUWiP) and partnership development with the American Physical Society organization</i>	13h45	
	(G)* Wang, Hanyang <i>The motion of spherical particles in a simple ratcheting system with AC Fields</i>	Mann, Robert <i>Relativistic Geoids</i>	Froese Fischer, Charlotte <i>My research in computational atomic physics</i>	14h00	
(G)* Falamarzi Askarani, Mohsen <i>Optical decoherence and spectral diffusion in an erbium- doped silica glass fiber featuring long-lived spin sublevels</i>	(G)* Przedborski, Michelle <i>Long-term behaviour of granular chains held between walls is really equilibrium.</i>	(G)* Corona Ugalde, Paulina <i>A generalized model of repeated quantum interactions</i>	(i) Mavriplis, Catherine <i>Advancing Women in Science and Engineering: 2016 Update of the NSERC Chair for Ontario</i>	14h15	
(G) Li, Jingwen <i>Hollow-core photonic Bragg fiber for bulk and surface sensing applications</i>	(G)* Iyer, Pavithran <i>Critical noise parameters for fault tolerant quantum computation</i>	(G)* Dupuis, Éric <i>Tunneling decay of false vortices: Gravitational effects</i>		14h30	
Session Ends / <i>Fin de la session</i>	Session Ends / <i>Fin de la session</i>	Session Ends / <i>Fin de la session</i>	Session Ends / <i>Fin de la session</i>	14h45	
T-PLEN Session plénière Bruker BioSpin:				15h00	
MRN 150 (cap. 420) Prés. : M. Martin, Présidente DPMB	Russell Jacobs, Beckman Inst./Caltech / Caltech Brain Imaging Center California Institute of Technology <i>Usages et abus des μIRM et des μTEP/μIRM simultanés : échanges d'un chimiste avec des physiciens en biologie – voir p. 12</i>				
Pause santé avec les exposants (STE ATRIUM)				15h45	

Tuesday, June 14 (cont'd)

TIME	CBY B205 (cap. 102)	STE C0136 (cap. 57)	STE G0103 (cap. 155)	CBY D103 (cap. 55)	CBY D207 (cap. 102)
	T3-1 Hadronic Structure (DNP) / Structure hadronique (DPN) Chair/Prés. : Reiner Kruecken, TRIUMF	T3-2 Plasma Physics and Applications (DPP) / Applications et physique des plasmas (DPP) Chair/Prés. : Michael Bradley, University of Saskatchewan	T3-3 Quantum Computing and Coherent Control (DAMOPC) / Calcul quantique et contrôle cohérent (DPAMPC) Chair/Prés. : Joyce Poon, University of Toronto	T3-4 Quantum Gravity and Quantum Cosmology (DTP) / Gravité quantique et cosmologie quantique (DPT) Chair/Prés. : Ariel Edery, Bishops University	T3-5 Cosmic Frontier: Dark Matter III (PPD) / Frontière cosmique: matière sombre III (PPD) Chair/Prés. : Hirohisa Tanaka, University of British Columbia
16h15	(i) Friesen, Tim <i>DNP Thesis Prize: Probing Trapped Antihydrogen: In situ diagnostics and resonant transitions</i>	(G)* Curry, Chandra <i>Deflection of laser accelerated protons due to multi-megagauss magnetic fields in high-intensity laser-plasma interactions</i>	(i) Childress, Lilian <i>Spins and photons: quantum optics with defect centers in diamond</i>	(i) Wilson-Ewing, Edward <i>Cosmology from Quantum Gravity</i>	Rau, Wolfgang <i>SuperCDMS and CUTE at SNOLAB</i>
16h30		(G)* Boisvert, Jean-Sébastien <i>Low-Frequency to High-Frequency Transition of an Atmospheric Pressure Helium Dielectric Barrier Discharge</i>			(U)* Mael, Jennifer <i>Upgrading the Shield of the GIOVE High-purity Germanium Detector</i>
16h45	(i) Jeon, Sangyong <i>Recent developments in characterization of Quark-Gluon Plasma</i>	Session Ends / Fin de la session	(G) Pugh, Christopher <i>Towards correcting atmospheric turbulence effects via pump beam control in a down conversion process</i>	(i) Ziprick, Jonathan <i>Basic elements of loop quantum gravity</i>	Gerbier, Gilles <i>The NEWS-SNO project</i>
17h00			(i) Boyd, Robert <i>The Promise of Quantum Nonlinear Optics</i>		(G)* Clark, Michael <i>Spectroscopic and time-resolved measurements of the fluorescence of pyrene at low temperatures for noble liquid particle detectors</i>
17h15	(G) Shen, Chun <i>Study the collectivity and electromagnetic emissivity in a small quark-gluon droplet</i>			Sharp, Jonathan <i>A Non-Local Lorentz-Invariant Quantum Spacetime</i>	(G)* Stukel, Matthew <i>X-ray Detectors for the Unique Third Forbidden Decay of Potassium-40</i>
17h30	Huber, Garth <i>Exploring the Electromagnetic Structure of the Charged Pion and Kaon</i>		Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
17h45	Roy, René <i>De-excitation of moderately excited compound nucleus for heavy-ion collisions at intermediate energies</i>				
17h30 to 18h45	Desmarais Bldg 12102 55 Laurier Ave. E	Department Leaders Business Meeting (Chair: D. Strickland, Director, Academic Affairs, CAP)			
	STE G0103 (cap. 155)	Carl Zeiss Canada Student-Industry Meet & Mingle (Chair: K. Michaelian, DIMP Chair)			
	CBY B202 (cap. 38)	CAP Past Presidents' Dinner (Chair: R. Fedosejevs, Past President, CAP)			
19h00- 21h30	Mamma Teresa Ristorante 300 Somerset St W, Ottawa	CJP Editorial Board Meeting (Chair: M. Steinitz, St. Francis-Xavier University)			
19h00- 22h00	STE ATRIUM	Poster Session with beer (Chair: S. Pistorius, Vice-President Elect, CAP)			

mardi 14 juin (suite)

CBY C03 (cap. 205)	CBY B012 (cap. 69)	STE J0106 (cap. 57)	STE H0104 (cap. 171)	HEURE
T3-6 Panel Discussion - Women in Physics: What's in it for both men and women? (CEWIP) / Table ronde - Les femmes en physique : qu'en retirent les hommes et les femmes? (CEFEP) Chair/Prés. : Shohini Ghose, Wilfrid Laurier University	T3-7 Applied Physics in Non-Academic Environment (DIAP-DIMP) / La physique hors université (DPIA-DPIM) Chair/Prés. : Bob Fedosejevs, University of Alberta	T3-8 Thin Films I (DSS-DCMMP) / Couches minces I (DSS-DPMCM) Chair/Prés. : Mark Gallagher, Lakehead University	T3-9 Atmospheric and Space Physics (DASP) / Physique atmosphérique et de l'espace II (DPAE) Chair/Prés. : James Drummond, Dalhousie University	
Panelists: Svetlana Barkanova (Acadia University), Melanie Campbell (University of Waterloo), Charlotte Froese Fischer (NIST), Adriana Predoi-Cross (University of Lethbridge), and Michael O. Steinitz (St. Francis Xavier University).	(i) Galarneau, Pierre <i>Working in an applied R&D center : INO as an example</i>	(G)* Corbellini, Luca <i>Epitaxially stabilized thin films of the potentially multiferroic materials ϵ-Fe₂O₃ and ϵ-AlxFe_{2-x}O₃.</i>	Yau, Andrew <i>New Observation of the Polar Wind in the Topside Ionosphere</i>	16h15
		Bukhari, Syed <i>Neutron Reflectometry: A non-destructive probe for in-situ corrosion monitoring in Cu-Ni (90/10) alloy</i>	Lomidze, Levan <i>On the validation of Swarm TII and LP data</i>	16h30
	(i) Moreau, Christian <i>Le physicien et le génie des matériaux - Physicists in Materials Engineering</i>	Bukhari, Syed <i>Growth of Cu-Ni (90/10) films by DC magnetron sputtering</i>	(G)* Mezaoui, Hichem <i>Dynamic analysis of the polar ionosphere during scintillation: towards an optimization of the detrending frequency</i>	16h45
		(G)* Guay, Jean-Michel <i>Plasmonic colouring of noble metals via picosecond laser pulses</i>	Session Ends / Fin de la session	17h00
	Haley, Craig <i>The Canadian Atmospheric Tomography System (CATS)</i>	Wei, John <i>Novel Phases of High-Tc Cuprates in Superoxygenated and Heterostructured Thin Films*</i>		17h15
	Session Ends / Fin de la session	Session Ends / Fin de la session		17h30
				17h45
Édifice Desmarais 12102 55, ave. Laurier E.	Réunion des directeurs de départements (Prés. : D. Strickland, Directrice, Affaires académiques, ACP)			17h30
STE G0103 (cap. 155)	Réseautage industrie-étudiants Carl Zeiss Canada (Prés. : K. Michaelian, Prés. DPIM)			18h45
CBY B202 (cap. 38)	Dîner des anciens présidents de l'ACP (Prés. : R. Fedosejevs, Ancien président, ACP)			
Mamma Teresa Ristorante 300 Somerset St W, Ottawa	Réunion du comité de rédaction de la RCP (Prés. : M. Steinitz, St. Francis-Xavier University)			19h00 -21h30
STE ATRIUM	Session d'affiches avec bière (Prés. : S. Pistorius, Vice-président élu, ACP)			19h00 -22h00

Wednesday, June 15

TIME	STE G0103 (cap. 155)	CBY B205 (cap. 102)	CBY D207 (cap. 102)	CBY B012 (cap. 69)
07h30-08h30	<p>STE 5084 (cap. 24)</p> <p style="text-align: center;">Physics in Canada Editorial Board Breakfast Meeting (Chair: B. Joós, Editor, PIC)</p>			
	<p>W1-1 Superconductivity (DCMMP) / Supraconductivité (DPMCM)</p> <p>Chair/Prés. : Oleg Rubel, McMaster University</p>	<p>W1-2 Energy Frontier: Standard Model and Higgs Boson (PPD) / Frontière d'énergie: modèle standard et boson de Higgs (PPD)</p> <p>Chair/Prés. : Gerald Oakham, Carleton University</p>	<p>W1-3 Testing Fundamental Symmetries I (DNP-PPD-DTP) / Tests de symétries fondamentales I (DPN-PPD-DPT)</p> <p>Chair/Prés. : Gerald Gwinner, University of Manitoba</p>	<p>W1-4 Radiation Therapy (DPMB-DNP) / Thérapie par rayonnement (DPMB-DPN)</p> <p>Chair/Prés. : Melanie Martin, University of Winnipeg</p>
08h30	<p>(i) Mitrovic, Bozidar <i>The effect of quasiparticle-self-energy on Cd₂Re₂O₇ superconductor</i></p>	<p>(i) Manjarres, Joany <i>Standard Model and Higgs boson studies with the ATLAS detector</i></p>	<p>(i) Scielzo, Nicholas <i>Tests of the electroweak interaction from studies of the beta decay of trapped ⁸Li ions</i></p>	<p>(i) Beaulieu, Luc <i>The role of advanced dose calculation methods in modern brachytherapy techniques</i></p>
08h45				
09h00	<p>Atkinson, Bill <i>Emergent charge order in cuprate high temperature superconductors</i></p>	<p>(G)* Veloce, Laurelle Maria <i>Production of Silicon Strip Modules for the ATLAS Phase-II Upgrade of the Inner Detector</i></p>	<p>(i) Kalita, Mukut <i>Search for a permanent electric dipole moment of the Ra-225 atom</i></p>	<p>Thomson, Rowan <i>Comparison of quantum and classical trajectory Monte Carlo simulations of low energy electron transport in water and biological tissues</i></p>
09h15	<p>Ozfidan, Isil <i>Gapless superconductivity on the surface of a 3D topological insulator</i></p>	<p>(G)* Weber, Stephen <i>ATLAS New Small Wheel (NSW) small-strip Thin Gap Chamber (sTGC) simulation in Athena</i></p>		<p>(G) Moradi, Hamid <i>Characterization of radioresistance in human ovarian cancer cells</i></p>
09h30	<p>(G)* Raslan, Amany <i>Temperature-Dependent Band Structure of LaAlO₃/SrTiO₃ Interfaces</i></p>	<p>(G)* Hill, Ewan Chin <i>Search for direct top squark pair production in events with two tau leptons with the ATLAS detector</i></p>	<p>Lee, Larry <i>The Ultra-Cold Neutron Facility at TRIUMF</i></p>	<p>(G)* Hu, Yang <i>Energy-cascaded Upconversion Nanoparticles for 800 nm Activated Photodynamic Therapy</i></p>
09h45	<p>(G)* Mikula, Paul <i>Gradient Flow in the Ginzburg-Landau Model of Superconductivity</i></p>	<p>(G) Gagnon, Louis-Guillaume <i>Search for supersymmetric partners of gluons and third generation quarks in events with b-jets and large missing transverse momentum in 13 TeV proton-proton collisions at the LHC using the ATLAS detector.</i></p>	<p>Kikawa, Tatsuya <i>Design of the first neutron production experiment using the new TRIUMF UCN beamline</i></p>	<p>(G)* Aziziyan, Mohammad Reza <i>Inductively coupled plasma mass spectrometry of photocorroding GaAs/AiGaAs nano-heterostructures in aqueous environments</i></p>
10h00	<p>(i) Luke, Graeme <i>Muon Spin Rotation/Relaxation as a Probe of Unconventional Superconductivity</i></p>	<p>(i) Ferber, Torben <i>Towards First Physics At Belle II</i></p>	<p>(G)* Keeshan, Ben <i>Custodial symmetry violation in the Georgi-Machacek model</i></p>	<p>(G)* Zhang, Qinrong <i>Electron-Transfer-Based Combination Therapy of Cisplatin with a Molecular Promoter for Cancer Treatment</i></p>
10h15			<p>(G)* Smith, Paul <i>Using dressed fields to extract gauge invariant information.</i></p>	<p>(G) Himbert, Sebastian <i>Red Blood Cell Ghosts for biomedical applications: Blood on a Chip</i></p>
10h30-11h00	<p>Health Break with Exhibitors (STE ATRIUM)</p>			

Wednesday, June 15 (cont'd)

11h00	MRN 150 (cap. 420)	Plenary Session – Carlos Silva, Université de Montréal (CAP-DCMMP Brockhouse Medal Recipient) - see pg. 12			W-MEDAL1
11h30	(Chair: R. MacKenzie, Vice-President, CAP)	Plenary Session – Gilles Fontaine, Université de Montréal (CAP Achievement Medal Recipient) - see pg. 12			W-MEDAL2
12h00-13h00	Annual Meeting for DCMMP STE G0103	Annual Meeting for DPE STE A0150	Annual Meeting for DIMP-DIAP STE C0136	LUNCH	
12h30-13h00	STE J0106 (cap. 57)	Asia-Pacific Centre for Theoretical Physics-CAP MOU Signing Ceremony and Information Session (Chair: R. MacKenzie, Vice-President, CAP)			
TIME	CBY B012 (cap. 69)	STE C0136 (cap. 57)	STE J0106 (cap. 57)	STE G0103 (cap. 155)	
	W2-1 Biomechanics and Fluid Dynamics (DPMB) / Biomécanique et dynamique des fluides (DPMB) Chair/Prés. : Christopher Bergevin, York University	W2-2 Curriculum Development and Revitalization (DPE) / Développement et revitalisation des programmes (DEP) Chair/Prés. : Patricia Mitchler, Balmoral Hall School	W2-3 Remote Sensing (DASP) / Détection à distance (DPAE) Chair/Prés. : Richard Marchand, University of Alberta	W2-4 Neutrino Physics (PPD-DNP-DTP) / Physique des neutrinos (PPD-DPN-DPT) Chair/Prés. : Christine Kraus, SNOLAB	
13h15	Lin, Francis <i>On-chip evaluation and manipulation of directed cell migration</i>	(i) O'Meara, Joanne <i>The evolution of the undergraduate physics curriculum at the University of Guelph</i>	(i) Drummond, James <i>Canada's Triad of Atmospheric Space Instruments: A 21st Century Success Story</i>	(i) Jamieson, Blair T2K	
13h30	(G) Maraghechi, Borna <i>Effect of temperature on the generation of acoustic harmonics in a tissue-mimicking liquid</i>				
13h45	(G)* Magill, Martin <i>The Translocation Time through a Nanopore with an Internal Cavity is Minimal for Polymers of Intermediate Length</i>	Rangan, Chitra <i>Authentic Assessment in Physics: A case study</i>	Fiori, Robyn <i>Improved techniques for monitoring and investigating polar cap absorption</i>	(G)* Bruulsema, Colin <i>Calibration of HALO for Long-Term Supernova Monitoring</i>	
14h00	(G)* Bagheri, Mehran <i>Flow-induced beta-sheet formation in silk fibroin solutions</i>	Lasry, Nathaniel <i>GRASP: a free app to manage group work and active learning classrooms</i>	Prikryl, P. <i>GPS phase scintillation during the geomagnetic storm of March 17, 2015: The relation to auroral electrojet currents</i>	Tanaka, Hirohisa A. <i>T2K Phase II: towards initial discovery of CP violation in neutrino oscillations</i>	
14h15	(i) Harden, James L. <i>Differential dynamic microscopy studies of collective cell dynamics</i>	MacLeod, Katarin <i>The Physics Educator: Findings and Insights</i>	Oyekola, Oyedemi <i>Evening and nighttime features of equatorial ionospheric F2 layer</i>	Konaka, Akira <i>Intermediate near detector NuPRISM for T2K extension and HyperK</i>	
14h30			Gillies, Rob <i>RISR-C incoherent scatter radar operations</i>	Retiere, Fabrice <i>Photon detection in nEXO</i>	
14h45	Session Ends / <i>Fin de la session</i>		Session Ends / <i>Fin de la session</i>	Session Ends / <i>Fin de la session</i>	
14h45-15h15	Health Break with Exhibitor (STE ATRIUM)				

mercredi 15 juin (suite)

MRN 150 (cap. 420)	Session plénière- Carlos Silva, Université de Montréal (Récipiendaire de la médaille ACP-DPMCM Brockhouse) - voir p. 12			W-MEDAL1	11h00
(Prés. : R. MacKenzie, Vice-président, ACP)	Session plénière- Gilles Fontaine, Université de Montréal (Récipiendaire de la Médaille pour contributions exceptionnelles de l'ACP) - voir p. 12			W-MEDAL2	11h30
Assemblée annuelle DPMCM STE G0103	Assemblée annuelle DEP STE A0150	Assemblée annuelle DPIM-DPIA STE C0136	DINER		12h00 -13h00
STE J0106 (cap. 57)	Cérémonie de signature du PE APCTP-ACP et séance d'information (Prés. : R. MacKenzie, Vice-Président, CAP)				12h30 -13h00
CBY B205 (cap. 102)	CBY D207 (cap. 102)	STE A0150 (cap. 125)	CBY D103 (cap. 55)		HEURE
W2-5 Thin Films II (DCMMP-DSS) / Couches minces II (DPMCM-DSS) Chair/Prés. : Fabio Variola, University of Ottawa	W2-6 DCMMP PhD Thesis Award Competition / Compétition du Prix de thèse doctorale DPMCM Chair/Prés. : Giovanni Fanchini, The University of Western Ontario	W2-7 Terahertz Science and Applications (DAMOPC) / Sciences et applications des Terahertz (DPAMPC) Chair/Prés. : Denis Morris, Université de Sherbrooke	W2-8 Cosmic Frontier: Dark Matter IV (PPD) / Frontière cosmique: matière sombre IV (PPD) Chair/Prés. : Darren Grant, University of Alberta		
(i) Moewes, Alexander <i>Exploring Silicene mono- and multilayers of Silicene and their oxidation with soft X-ray spectroscopy and DFT calculations</i>	(G) Hildebrand, William <i>Ultrasonic waves in strongly scattering disordered media: understanding complex systems through statistics and correlations of multiply scattered acoustic and elastic waves.</i>	(i) Jelic, Vedran <i>Ultrahigh Vacuum Terahertz Scanning Tunneling Microscope</i>	(G)* McElroy, Thomas <i>Pulse Finding and Single Photon Counting for the DEAP-3600 Experiment</i>		13h15
	(G) Ozfidan, Isil <i>Electron-Electron Interactions in Optical Properties of Graphene Quantum Dots</i>		(G)* Bahrami, Sahar <i>Dark matter with Vector-like Fermions</i>		13h30
(G)* Razafindramanana, Volatiana <i>Microstructure and hydrogen storage properties of FeTi + x wt% Hf alloys (x = 0, 2, 4 and 8)</i>	(G) Bazylewski, Paul <i>Band Engineering of Graphene using Metal Mediated Oxidation</i>	(G) Guerboukha, Hichem <i>Silk Foam Terahertz Waveguides for Biomedical and Agri-Food Applications</i>	(G)* Giampa, Pietro <i>Delayed Coincidence Analysis to Tag Alpha Decays from Radon in The DEAP-3600 Experiment</i>		13h45
(G)* Durette, David <i>Adsorption d'hydrogène dans des adsorbants microporeux : Étude numérique des propriétés thermodynamiques</i>	Session Ends / Fin de la session	(G)* Guerboukha, Hichem <i>Dynamic measurements at THz frequencies with a fast rotary optical delay line</i>	(G)* Campbell, Robyn <i>Phenomenological constraints on a model with a Higgs-like dilaton and singlet scalar dark matter</i>		14h00
(G)* Larochelle, Jean-Simon <i>Detection of hydrogen in steel with an N-15 nuclear resonance</i>		(i) Ozaki, Tsuneyuki <i>Intense Terahertz Sources and their Applications at the Advanced Laser Light Source</i>	(G)* Mielnichuk, Courtney <i>A Study of Alpha Particle Backgrounds in the Neck of the DEAP-3600 Detector</i>		14h15
(G)* Ho, Xuan-Long <i>Orienting an ensemble of dipoles near a dielectric interface</i>			(G)* Wu, Shihao <i>Search for New Physics: Dark Vector Boson</i>		14h30
Session Ends / Fin de la session		Session Ends / Fin de la session	Session Ends / Fin de la session		14h45
Pause santé avec les exposants (STE ATRIUM)					14h45 -15h15

Wednesday, June 15 (cont'd)

TIME	CBY B205 (cap. 102)	STE J0106 (cap. 57)	STE A0150 (cap. 125)
	W3-1 Nuclear Structure III (DNP) / Structure nucléaire III (DPN) Chair/Prés. : Ritu Kanungo, St. Mary's University	W3-2 Teaching Physics to a Wider Audience (DPE) / Enseigner la physique à un auditoire plus vaste (DEP) Chair/Prés. : Daria Ahrensmeier, Simon Fraser University	W3-3 Quantum Transport (DCMMP) / Transport quantique (DPMCM) Chair/Prés. : An-Chang Shi, McMaster University
15h15	(i) Lascar, Daniel <i>Mass Measurements with TITAN: Capabilities and Progress</i>	Lasry, Nathaniel <i>An Asynchronous Peer Instruction Platform</i>	(i) Ménard, Jean-Michel <i>Dynamique ultra-rapide de polaritons excitoniques: de leur création à leur condensation dans un état macroscopique quantique</i>
15h30		Kalman, Calvin <i>Can learning about History of Science and Nature of Science in a student-centred classroom change science students' conception of science?</i>	
15h45	(i) Muecher, Dennis <i>Probing Nuclear Shell Evolution using Radioactive Ion Beams at ISOLDE, CERN</i>		Crandles, David <i>Electrode effects in dielectric spectroscopy measurements on (Nb⁺In) co-doped TiO₂</i>
16h00		Connors, Martin <i>Twenty Years of Innovative Physics Distance Education at Athabasca University</i>	(G) Rinkel, Pierre <i>Fingerprints of the axion in the phonon properties of topological semimetals</i>
16h15	Starosta, Krzysztof <i>Chiral basis for particle-rotor model for triaxial nuclei</i>	Czajkowski, Andrzej <i>The online preparatory course on basic mechanics for first year life-science students without HS background in physics.</i>	(G) Panfilov, Ivan <i>Chiral spin liquid from magnetic Wannier states</i>
16h30	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
16h40	STE G0103 (cap. 155)	CAP President's Report by Adam J. Sarty (Chair: R. MacKenzie, Vice-President, CAP)	
17h00	STE G0103 (cap. 155)	CAP AGM with election of Board and Advisory Council Members (Chair: A. Sarty, President, CAP)	
18h45	FSS 4004 (cap. 55)	"Friends of CAP" Dinner and Meeting (Chair: S. Rehse, Dir. Member Services, CAP)	
to	CBY D103 (cap. 55)	CEWIP Annual Meeting & Reception (Chair: S. Ghose, CEWIP Chair)	
20h00	STE A0150 (cap. 125)	Professional Practice Development (Chair: M. O'Neill, Dir. Professional Affairs, CAP)	
	STE 5084 (cap. 24)	Outreach "Tête-à-Tête" (Chair: M. Pavan, Dir. Communications, CAP)	
19h30	T-Special		
to	MRN 150 (cap. 420)	100 Years in 100 Minutes: A Century of Physics at the National Research Council of Canada (Chair: R. Bourgeois-Doyle, NRC) see pg. 16 for details	
21h30			

mercredi 15 juin (suite)

CBY B012 (cap. 69)	CBY D207 (cap. 102)	STE G0103 (cap. 155)	HEURE
W3-4 Technical Exploits (DIAP-DIMP) / Prouesses techniques (DPIA-DPIM) Chair/Prés. : René Roy, Université Laval	W3-5 Cosmology and Astrophysics (DTP-DIMP-PPD) / Cosmologie et astrophysique (DPT-DPIM-PPD) Chair/Prés. : Mohammad Ahmady, Mount Allison University	W3-6 Cold and Trapped Atoms, Molecules and Ions (DAMOPC) / Atomes, molécules et ions froids et piégés (DPAMPC) Chair/Prés. : Adriana Predoi-Cross, Lethbridge University	
(i) Thibault, Simon <i>Optique pour téléphone cellulaire : Pouvons-nous miniaturiser davantage?</i> <i>Consumer electronic optics : How small a lens can be?</i>	(i) Steele, Tom <i>The Conformal Standard Model, Higgs Portal Extensions, and Dark Matter</i>	(G)* Fitzpatrick, Matthew <i>Spatio-temporal correlations after a quantum quench in the Bose-Hubbard model</i>	15h15
		(i) McGuirk, Jeffrey <i>Nonclassical diffusion in a nondegenerate ultracold gas</i>	15h30
(i) Lamb, Robert <i>Non stick coatings from thin air</i>	Faraoni, Valerio <i>Turnaround radius in an accelerated universe for Einstein and for modified gravity</i>		15h45
	Plamondon, Réjean <i>Secular Increase of the Astronomical Unit: A Hubble-like Expansion?</i>	(G) Spierings, David <i>Calibration of a Larmor Clock for Tunneling Time Experiments</i>	16h00
Session Ends / Fin de la session	Kunstatter, Gabor <i>Formation and Evaporation of Nonsingular Black Holes in New 2d Gravity</i>	LeBlanc, Lindsay <i>Vortex formation in spin-orbit coupled Bose- Einstein condensates</i>	16h15
	Session Ends / Fin de la session	Session Ends / Fin de la session	16h30
STE G0103 (cap. 155)	Rapport du président de l'ACP, Adam J. Sarty (Prés. : R. MacKenzie, Vice-président, ACP)		16h40
STE G0103 (cap. 155)	AGA de l'ACP avec élection des membres du c.a. et du conseil consultatif (Prés. : A. Sarty, Président, ACP)		17h00
FSS 4004 (cap. 55)	"Ami(e)s de l'ACP" Dîner-rencontre (Prés. : S. Rehse, Dir. Services aux membres, ACP)		18h45
CBY D103 (cap. 55)	Assemblée annuelle CEFEP et réception (Prés. : S. Ghose, Prés. CEFEP)		à 20h00
STE A0150 (cap. 125)	Développement d'exercice professionnel (Prés. : M. O'Neill, Dir. Affaires professionnelles, ACP)		
STE 5084 (cap. 24)	« Tête-à-Tête » Liaisons externes (Prés. : M. Pavan, Dir. Communications, ACP)		
T-Special			19h30
MRN 150 (cap. 420))	100 ans en 100 minutes : Un siècle de physique au Conseil national de recherche du Canada (Prés. : R. Bourgeois-Doyle, CNRC) voir p. 16 pour les détails		à 21h30

Thursday, June 16

TIME	STE C0136 (cap. 57)	STE G0103 (cap. 155)	CBY B205 (cap. 102)	CBY B012 (cap. 69)
07h30-08h30	STE 5084 (cap. 24)			
CNILC Breakfast Meeting (Chair: Jens Dilling, TRIUMF, UBC)				
	R1-1 Interactive Teaching: Teaching with Technology (DPE) / Enseignement interactif et à l'aide de la technologie (DEP) Chair/Prés. : Don Matthewson, Kwantlen Polytechnic University	R1-2 Strongly Correlated Systems (DCMMP) / Systèmes fortement corrélés (DPMCM) Chair/Prés. : Graeme Luke, McMaster University	R1-3 Advances in Nuclear Physics and Particle Physics Theory (DTP-DNP-PPD) / Progrès en physique nucléaire et en physique des particules théoriques (DPT-DPN-PPD) Chair/Prés. : Aleksandrs Aleksejevs, Grenfell, MUN	R1-4 Nuclear Physics in Medicine (DPMB-DNP-DIAP) / Physique nucléaire en médecine (DPMB-DPN-DPIA) Chair/Prés. : Christopher Bergevin, York University
8h30	Sharp, Jonathan <i>OpenPhys: a Responsive Website Platform for Interactive Physics Education</i>	Dhirani, Al-Amin <i>Nanoengineering materials: a bottom-up approach towards understanding long outstanding challenges in condensed matter science</i>	(i) Svenne, Juris <i>12 years of MCAS: Multi-Channel Algebraic Scattering</i>	(G) Ignacio, Maxime <i>Diffusion-Controlled Drug Release: Beyond Weibull</i>
08h45	Ahrensmeier, Daria <i>Online versus paper homework — how does it affect student experience, attitudes, and learning?</i>	Reymbaut, Alexis <i>Antagonistic effects of nearest-neighbor repulsion on the pairing dynamics of the extended Hubbard model</i>		
09h00	(i) Slepkov, Aaron <i>Integrated Testlets: Multiple-Choice Testing 2.0</i>	Wortis, Rachel <i>Pseudospin representation of the two-site Anderson-Hubbard model</i>	(i) Pospelov, Maxim <i>(TBC) New physics efforts at the intensity frontier</i>	(i) deKemp, Robert <i>Myocardial Flow Reserve Imaging to Direct Optimal Therapies for Ischemic Heart Disease</i>
09h15		Julian, Stephen <i>Metallization of a neutral organic radical by pressure</i>		
09h30	Milner-Bolotin, Marina <i>Innovative use of collaborative video annotation system in physics teacher education</i>	Clancy, Patrick <i>Pressure-induced collapse of the $J_{eff} = 1/2$ ground state in Li_2IrO_3</i>	Marleau, Luc <i>Near-BPS Skyrme Models for Nuclei</i>	(i) Teymurazyan, Aram <i>Towards reducing the dose needed for Megavoltage Cone Beam CT</i>
09h45	Mansour, Firas <i>High quality online content for Blended/Flipped Physics classrooms, Successes and Challenges</i>	Yamani, Zahra <i>Neutron scattering study of magnetism in $HoFeO_3$</i>	Cachazo, Freddy <i>The Unified Formulation of Scattering</i>	
10h00	Session Ends / Fin de la session	(i) Sirker, Jesko <i>Dynamics in integrable quantum systems</i>	Ahmady, Mohammad <i>Careful treatment of the effects of cc^- narrow resonances in $B \rightarrow K^*\mu^+\mu^-$ observables</i>	(i) Thiessen, Jonathan <i>Simultaneous PET/MRI with Clinical and Preclinical Systems</i>
10h15			Sandapen, Ruben <i>Diffraction vector meson production using a holographic AdS/QCD light-front wavefunction</i>	
10h30	Session Ends / Fin de la session		Session Ends / Fin de la session	
Health Break (STE ATRIUM)				
11h00	R-MEDAL1 MRN 150 (cap. 420)	Freddy Cachazo, Perimeter Institute (CAP-CRM Prize in Theoretical and Mathematical Physics Recipient) See pg. 13 (Chair: R. MacKenzie, Vice-President, CAP)	Richard Boudreault, Polar Knowledge Canada (CAP-INO Medal for Outstanding Achievement in Applied Photonics) See pg. 13 (Chair: R. Fedosejevs, Past President, CAP)	R-MEDAL2 CBY C03 (cap. 205)
11h30-12h00	R-MEDAL3 MRN 160 (cap. 302)	Akira Konaka, TRIUMF (CAP-TRIUMF Vogt Medal Recipient) See pg. 13 (Chair: A. Sarty, President, CAP)		

jeudi 16 juin

STE 5084 (cap. 24)		Réunion du Comité de liaison national canadien de l'UIPPA (Prés. : Jens Dilling, TRIUMF, UBC)		07h30 -08h45
STE H0104 (cap. 171)	STE J0106 (cap. 57)	CBY D207 (cap. 102)	HEURE	
R1-6 Photonics II: Optoelectronics and Devices (DAMOPEC-DCMMP) / Photonique II : optoélectronique et dispositifs (DPAMPC-DPMCM) Chair/Prés. : Matt Reid, University of Northern BC	R1-6 General Instrumentation I (DIMP) / Physique générale des instruments I (DPIM) Chair/Prés. : Kirk Michaelian, Natural Resources Canada	R1-7 Cosmic Frontier: Dark Matter V (PPD) / Frontière cosmique: matière sombre V (PPD) Chair/Prés. : Gilles Gerbier, Queen's University		
		(G) Giroux, Guillaume <i>PICO-60-RSU: A buffer liquid free bubble chamber to search for dark matter</i>	08h15	
(i) Das, Gautam <i>Fiber lasers: Detection of gases and chemicals</i>	Rodrigues, Matthew <i>Nuclear Emergency Response: Comparison of Different Methodologies to Measure I⁹-Radiation from Ground Deposition</i>	Ouellet, Christian <i>Backgrounds involved in dark matter signal extraction for DEAP-3600</i>	08h30	
	Kazi, Zakir <i>Measurements of 236U by Accelerator Mass Spectrometry</i>	Mehdiyev, Rashid <i>A Study of Optical Calibration for the DEAP-3600 Dark Matter Search</i>	08h45	
(G) Valiunas, Jonas <i>Detection of C2H2 at a concentration of ppmv levels using a fiber laser system</i>	MacDonald, Cole <i>Measurement of Fissionogenic Cs Radioisotopes in Seawater by QQQ-ICPMS: Progress Report</i>	Fallows, Scott <i>Status of the upgraded PICO-60 experiment</i>	09h00	
Calà Lesina, Antonino <i>Shaping the light by nonlinear flat optics</i>	Guérin, Nicolas <i>Improve Determination of ⁹⁹Tc in Environmental Samples by ICP-MS using TRU® Resin</i>	Lawson, Ian <i>Status of the DAMIC Dark Matter Experiment</i>	09h15	
Calà Lesina, Antonino <i>Shifted nanorods to increase the density of plasmonic hot-spots for nonlinear optics enhancement</i>	(G) Freund, Benjamin <i>DHCAL with Minimal Absorber: Measurements with Positrons</i>	Cai, Bei <i>Characterization of the NEWS spherical gas detectors</i>	09h30	
Session Ends / Fin de la session	De Silva, Nimal SELECTION OF OPTIMAL REGRESSION MODELS FOR INSTRUMENT CALIBRATION	Kamaha, Alvine <i>NEWS experiment: results from a 60 cm prototype run with Neon</i>	09h45	
	(G) VanBommel, Scott <i>Advancing Canada's Martian In Situ Spectrometer: Sub-cm Chemistry for the Ongoing Assessment of Past Habitability on Mars</i>	Podviianiuk, Ruslan <i>Muon Veto for the PICO Dark Matter Search Experiment</i>	10h00	
	Session Ends / Fin de la session	von Krosigk, Belina <i>Photoneutron calibration of SuperGDMS cryogenic dark matter detectors</i>	10h15	
		Session Ends / Fin de la session	10h30	
Pause santé (STE ATRIUM)				
R-MEDAL1 MRN 150 (cap. 420)	Freddy Cachazo, Perimeter Institute (Récipiendaire Prix ACP-CRM en physique théorique et mathématique) voir p. 13 (Prés. : R. MacKenzie, Vice-président, ACP)	Richard Boudreault, Savoir polaire Canada (Récipiendaire Médaille de l'ACP-INO pour contributions exceptionnelles en photonique appliquée) voir p. 13 (Prés. : R. Fedosejevs, Ancien président, ACP)	R-MEDAL2 CBY C03 (cap. 205)	11h00
R-MEDAL3 MRN 160 (cap. 302)	Akira Konaka, TRIUMF (Récipiendaire de la médaille Vogt de l'ACP-TRIUMF) voir p. 13 (Prés. : A. Sarty, Ancien président, ACP)			11h30 -12h00

Thursday, June 16 (cont'd)

12h00-13h00	Annual Meeting for DHP CBY B012		Annual Meeting for PPD STE C0136	
	Annual Meeting for DTP STE J0106		LUNCH	
TIME	STE H0104 (cap. 171)	CBY B205 (cap. 102)	CBY D207 (cap. 102)	CBY B012 (cap. 69)
	R2-1 Computational Condensed Matter (DCMMP) / Matière condensée numérique (DPMCM) Chair/Prés. : Mohamed Gharbi, McGill University	R2-2 Energy Frontier: Further Developments (PPD) / Frontière d'énergie: développements futurs (PPD) Chair/Prés. : Erica Caden, Laurentian University	R2-3 Testing Fundamental Symmetries II (PPD-DNP-DTP) / Tests de symétries fondamentales II (PPD-DPN-DPT) Chair/Prés. : Richard Ford, SNOLAB	R2-4 Biophotonics (DPMB-DAMOPC) / Biophotonique (DPMB-DPAMPC) Chair/Prés. : Christopher Bergevin, York University
13h15	(i) Shi, An-Chang <i>Complex ordered phases of multiblock copolymers</i>	(i) Dassoulas, James <i>Searches for new physics with the ATLAS detector</i>	Martin, Jeffery <i>Neutron EDM Experiment at TRIUMF</i>	(G) Rajai, Payman <i>Simultaneous Measurement of Refractive Index and Thickness of Multi Layer Systems Using Fourier Domain Optical Coherence Tomography</i>
13h30			Olin, Art <i>Improved limit on the charge of antihydrogen</i>	Whelan, Bill <i>Characterization of Gold Nanocages as Contrast Agents for Optoacoustic Imaging</i>
13h45	Chubynsky, Mykyta V. <i>Electrophoresis of a charged polymer attached to an uncharged object: does the nature of the object matter?</i>	(i) de Perio, Patrick <i>PPD PHD award: Joint Three-Flavour Oscillation Analysis of ν_μ Disappearance and ν_e Appearance in the T2K Neutrino Beam</i>	Di Stefano, Philippe <i>The KDK project: measuring the decay of 40K</i>	Campbell, Melanie <i>Changes in ocular properties can be predicted from retinal blur due to defocus during emmetropization in the chick eye</i>
14h00	Polson, James <i>Conformational free energy of polymers under confinement</i>		(i) Vachon, Brigitte <i>Upgrades to the ATLAS detector at the LHC</i>	(i) Anis, Hanan <i>Advances in Raman spectroscopy and its applications</i>
14h15	(i) Rubel, Oleg <i>Molecular insight to biocompatibility of carbon-based nanomaterials</i>	(i) Grant, Darren <i>IceCube-DeepCore-PINGU</i>		
14h30			(G) Earl, Kevin <i>The spontaneous Z_2 breaking Twin Higgs</i>	(G) Aulakh, Kavleen <i>Laser Induced Neuro-Stimulation Analysis</i>
14h45	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session	Session Ends / Fin de la session
Health Break (STE ATRIUM)				
15h00-17h00	MRN 150 (cap. 420)	CAP Best Student Presentations Final Competition - 8 finalists (Chair/Prés. : S. Pistorius, VP Elect, CAP)		
17h00-17h45	R-PLEN MRN 150 (cap. 420)	Plenary Session: Paul Corkum, University of Ottawa <i>Probed quantum systems from the inside – on the attosecond time scale - See pg. 13</i> (Chair/Prés. : A. Sarty, President, CAP)		
18h30-22h00	Recognition Reception at the Shaw Centre			

jeudi 16 juin (suite)

Assemblée annuelle DHP CBY B012		Assemblée annuelle PPD STE C0136		12h00 -13h00	Friday, June 17 / vendredi 17 juin
Assemblée annuelle DPT STE J0106		DINER			
STE G0103 (cap. 155)	STE C0136 (cap/ 57)	STE J0106 (cap. 57)	HEUR E	CBY A707A (cap. 45)	
R2-5 Quantum Information and Quantum Optics (DCMMP-DAMOPC) / Information quantique et optique quantique (DPMCM-DPAMPC) Chair/Prés. : Jean-Michel Ménard, University of Ottawa	R2-6 General Instrumentation II (DIMP) / Physique générale des instruments II (DPIM) Chair/Prés. : Kirk Michaelian, Natural Resources Canada	R2-7 Open Educational Resources Discussion (DPE) / Discussion sur les ressources éducatives libres (DEP) Chair/Prés. : Martin Williams, University of Guelph		08h30-10h00 CAP Foundation AGM / AGA de la Fondation de l'ACP (Chair/Prés. : M. Roney, Chair/Prés., CAPF)	
(i) Bechhoefer, John <i>Testing Landauer's Principle in a Feedback Trap</i>	Dhirani, Al-Amin <i>A nanogap, impedance microchip for sensitive and surface tunable sensing</i>		13h15	10h00-11h30 CAP Foundation Board of Directors Meeting / Réunion du c.a. de la Fondation de l'ACP (Chair/Prés. : M. Roney, Chair/Prés., CAPF)	
	Beaulieu, Luc <i>A 16-Microcantilever Array Sensing System for the Rapid and Simultaneous Detection of Analyte</i>		13h30	11h30-14h00 CAP Board of Directors Meeting (New and Old) / Réunion du c.a. (nouveau et ancien) de l'ACP (Chair/Prés. : R. MacKenzie, incoming President, CAP)	
(j) Simmons, Stephanie <i>A photonic link for donor spin qubits in silicon</i>	Poirier, Louis <i>The automation of the NRC ice load monitoring system at the Confederation Bridge</i>	Session Ends / Fin de la session	13h45		
	Connors, Martin <i>Domains of application of microcontrollers and single board linux computers in data acquisition</i>		14h00	14h00-15h15 CAP/LOC co-chairs meeting / Réunion de l'ACP et des co-présidents du COL	
(G) Grimmer, Daniel <i>Repeated Interaction with Ensemble of Ancillas</i>	Session Ends / Fin de la session		14h15	(Chair/Prés. : R. MacKenzie, incoming President, CAP)	
Dalidovich, Denis <i>Shape dependence of two-cylinder Renyi entropies for a free boson lattice field theory</i>			14h30	End of Congress / Fin du congrès	
Session Ends / Fin de la session			14h45	Tour information will be posted in the registration area. / L'information sur les visites guidées sera affichée dans l'aire d'inscription.	
Pause santé (STE ATRIUM)					
MRN 150 (cap. 420)	Finale de la compétition meilleure communication étudiante de l'ACP - 8 finalistes		15h00 -17h00		
R-PLEN	Session plénière - Paul Corkum, Université d'Ottawa		17h00 -17h45		
MRN 150 (cap. 420)	Systèmes quantiques sondés de l'intérieur – à l'échelle de l'attoseconde - voir p. 13				
Gala reconnaissance au Centre Shaw			18h30 -22h00		

POSTER SESSION – TUESDAY, JUNE 14
SESSION D’AFFICHES – MARDI 14 JUIN
19h00-22h00
SITE ATRIUM
DIVISION OF ATOMIC, MOLECULAR AND OPTICAL PHYSICS, CANADA /
DIVISION DE LA PHYSIQUE ATOMIQUE, MOLÉCULAIRE ET PHOTONIQUE, CANADA (DAMOPC-DPAMPC)

- POS-1 (U)* *Achieving super-resolution through nonlinear structured illumination*
ABBAS, Aazad
- POS-2 (U)* *Hyperbolic Metamaterial Nano-Resonators Make Poor Single Photon Sources*
AXELROD, Simon
- POS-3 (G)* *Peak Intensity and Energy Confinement Enhancement of Airy Bullets*
BONGIOVANNI, Domenico
- POS-4 *The Effect of Electrolyte Additives on Crystallite Orientation in Galvanic Cu Deposits on (111), (100) and (110) Cu Surfaces*
BRUENING, Ralf
- POS-5 (G) *Generation of vortex beam superpositions using angular gratings*
DICAIRE, Marie-Claude
- POS-6 *Anomalous magnetic moment (AMM) effect on some $2s^2 p^2$ lifetimes*
FROESE FISCHER, Charlotte
- POS-7 (G)* *Entangled photon pair source towards quantum spectroscopy*
GUNTHER, Aimee
- POS-8 *Field synthesis at 1.8 microns for isolated attosecond pulses*
HAMMOND, TJ
- POS-9 *On a minimal set of separable measurements for a pure state determination in a two-qubit system*
IVANOVIC, Igor
- POS-10 *Detection of Metastable Particles Using Solid N₂ at 10K*
KEDZIERSKI, Wladek
- POS-11 (G) *Lasing in the nitrogen molecular ion*
LAFERRIERE, Patrick
- POS-12 (G)* *3D Printed Hollow-Core Terahertz Optical Waveguides With Hyperuniform Disordered Dielectric Reflectors*
MA, Tian
- POS-13 *Modelling seeded stimulated Brillouin scattering (SBS) and dispersion*
NEWMAN, Scott
- POS-14 (G)* *A Fine Pointing System Suitable for Quantum Communications on a Satellite*
PUGH, Christopher
- POS-15 (G)* *Experiment friendly entanglement witness for multipartite entanglement in atomic frequency combs*
ZARKESHIAN, Parisa

ATMOSPHERIC AND SPACE PHYSICS /
PHYSIQUE ATMOSPHÉRIQUE ET DE L'ESPACE (DASP-DPAE)

- POS-16 *Miniature Plasma Imager: A new tool for in situ ionospheric and auroral investigations from nanosatellites*
BURCHILL, Johnathan

CONDENSED MATTER AND MATERIALS PHYSICS /
PHYSIQUE DE LA MATIÈRE CONDENSÉE ET MATÉRIAUX (DCMMP-DPMCM)

- POS-17 *Study of Mesoporous Silica Hybrid Nanoparticles and their Biocompatibility*
AHLUWALIA, Gurinder Kaur
- POS-18 *Surface vacancy mediated pinning of the magnetisation in γ -Fe₂O₃ nanoparticles: A micromagnetic simulation study*
ALKADOUR, Bassel
- POS-19 (G)* *Investigating the Binding Capabilities of Triazole-Calix[4]arene Functionalized Microcantilever Sensors Towards Heavy Metals in Aqueous Solution*
BRAIM, Mona
- POS-20 (G) *Real-space renormalization group approach to the Anderson model*
CAMPBELL, Eamonn
- POS-21 (G)* *Four state ferroelectric memory devices at room temperature*
CHAKRABARTTY, Joyprokash
- POS-22 (G)* *InGaN/GaN Nanostructures for High Efficiency Solar Cells*
CHERITON, Ross

- POS-23 (G) *Photoinduced phase transition in vanadium dioxide: visualizing the time-dependent crystal potential using ultrafast electron diffraction data*
DE COTRET, René Laurent
- POS-24 (G) *Investigation of Entropy-Enthalpy Compensation Effect on the Ti-V-Cr system*
DIXIT, Viney
- POS-25 (G)* *A Computational Analysis of the Application of Skewness and Kurtosis to Corrugated and Abraded Surfaces*
DOWNEY, Tyler
- POS-26 (G) *Is SmB6 the topological insulator or not?*
ELFIED, Khawla
- POS-27 (U) *Indirect internuclear coupling in topological insulator Bi2Se3*
GAUVIN-NDIAYE, Chloé
- POS-28 (G) *Can gravity stabilize a topological quantum memory at finite temperature?*
GOBEIL, Thomas
- POS-29 (G)* *New room-temperature multiferroic thin films of Ba2LnFeNb4O15 (Ln = Eu and Sm) deposited by pulsed laser deposition*
HAJLAOUI, Thameur
- POS-30 (G)* *Monte Carlo studies of the pseudogap regime in the cuprate superconductors*
HAYWARD SIERENS, Lauren
- POS-31 (G) *Investigation of effect of ball milling on hydrogen storage properties of 52Ti-12V-36Cr.*
KAMBLE, Amol
- POS-32 (G) *Quantum Model for Machine Learning Applications*
KULCHYTSKYY, Bohdan
- POS-33 (G) *Electron spin resonance spectra of strontium aluminate at high microwave fields and strong illumination*
LI, Ye
- POS-34 (G)* *Dynamical polarizability of the pseudospin-1 dice lattice*
MALCOLM, John
- POS-35 *Photocarrier Dynamics in Si and SiGe Nanowires Studied Using Optical-Pump Terahertz-Probe Measurements*
MORRIS, Denis
- POS-36 (G)* *A Phononic Crystal Waveguide for Surface Acoustic Waves*
MUZAR, Edward
- POS-37 (G)* *Electron Localization in Group III-V Semiconductor Compound Alloys*
PASHARTIS, Christopher
- POS-38 (G) *Hydrogen storage properties of TiFe + Zr alloys*
PATEL, Abhishek Kumar
- POS-39 (G) *Hydrogen storage properties of TiFe + x%ZrMn2 (x = 2, 4, 8, 12) alloys*
PENG, Lv
- POS-40 (G) *Floquet many-body localization transition in the thermodynamic limit*
PONTE, Pedro
- POS-41 *Raman and Infrared Study of Phonons in a Pyrochlore Superconductor*
REEDYK, Maureen
- POS-42 (G)* *Phonon Dynamics of Lead Scandium Tantalate*
SPENCER, Stephen
- POS-43 (G) *Structure and Dynamics with Ultrafast Electron Microscopes: Watching nano-microstructural evolution during complex crystallization in a-Ge*
STERN, Mark
- POS-44 (G) *Spin Correlation Functions on Pyrochlore Lattice*
WEI, Chen
- POS-45 (G) *Colossal Permittivity in In + Nb co-doped TiO2*
YEE, Susan
- POS-46 (G)* *Intrinsic instability of metal-trihalide perovskite solar cell*
ZHENG, Chao

INDUSTRIAL AND APPLIED PHYSICS /
PHYSIQUE INDUSTRIELLE ET APPLIQUÉE (DIAP-DPIA)

- POS-47 (G)* *Gas Source Development for Accelerator Mass Spectrometry*
BOLEN, Ryan
- POS-48 *Measurement of Curium Fluoride Anions by Accelerator Mass Spectrometry*
CHARLES, Christopher

- POS-49 (G)* *Metal Colorization and its application: using picosecond pulses*
COTE, Guillaume
- POS-50 *Muon Tomography applications to nuclear non-proliferation and waste management*
ERLANDSON, Andrew
- POS-51 *Comovement of Unrelated Equities with Similar Ticker Symbols*
WHITE, Jonathon David

INSTRUMENTATION AND MEASUREMENT PHYSICS /
PHYSIQUE DES INSTRUMENTS ET MESURES (DIMP-DPIM)

- POS-52 (G)* *A Primary Cold-Atom Based Vacuum Pressure Standard*
JOOYA, Kais
- POS-53 (G)* *Cloud Point Extraction of Plutonium in Fish Tissues Coupled to Alpha Spectrometry*
LEBLANC, Alexa
- POS-54 (G) *RF-Compressed Ultrafast Electron Diffraction: Long-Term Sub-50 fs Phase Stabilization in High-Brightness Instruments*
OTTO, Martin
- POS-55 (G)* *Towards sequential and automated CPE methods to pre-concentrate and extract radionuclides from environmental matrices*
TREMBLAY, Anthony

NUCLEAR PHYSICS /
PHYSIQUE NUCLÉAIRE (DNP-DPN)

- POS-56 *45^{Sc} Ion Motion in an RFQ: a Study of SIMION 8.1 for Modeling Isobar Separator Beam Dynamics in AMS*
CHARLES, Christopher
- POS-57 *Installation of EMMA, a Recoil Mass Spectrometer for TRIUMF's ISAC-II Facility*
DAVIDS, Barry
- POS-58 (G) *An absolute neutron flux measurement of the $^{51}\text{V}(p,n)^{51}\text{Cr}$ reaction for PICO bubble chambers calibration*
GIRARD, Frédéric
- POS-59 (G)* *Progress on TITAN's Cooler Penning Trap*
KOOTTE, Brian
- POS-60 (U)* *Alpha-gamma Angular Correlation in 209Po Using TIGRESS Integrated Plunger*
WU, Frank(Tongan)

PHYSICS EDUCATION/
ENSEIGNEMENT DE LA PHYSIQUE (DPE-DEP)

- POS-61 *La vulgarisation au sujet des aurores boréales dans le projet AUTUMNX*
CONNORS, Martin
- POS-62 *Optical trapping of micrometer sized latex spheres in the undergraduate advanced lab: learning goals and outcomes*
MATANSKA, Penka

PHYSICS IN MEDICINE AND BIOLOGY/
PHYSIQUE EN MÉDECINE ET EN BIOLOGIE (DPMB)

- POS-63 *Personalized Treatment Planning for Targeted Radionuclide Therapy: A Monte Carlo Model*
AHMED, Asm S
- POS-64 (G)* *Development of synchrotron-based x-ray scatter projection imaging*
DYDULA, Christopher
- POS-65 *Adaptive endoscopic imaging of brain*
GALSTIAN, Tigran
- POS-66 (G)* *Multi-modality Bone Mineral Density Measurements in the Presence of Bone Seeking Elements Accumulated in Bone*
JANG, Deok Hyun
- POS-67 (U) *Vérification de l'équation de la friction visqueuse*
LIRETTE, Frédéric
- POS-68 (U) *Vérification de la loi de Poiseuille*
LIRETTE, Frédéric
- POS-69 (G)* *Relaxation of a Simulated Lipid Bilayer Vesicle Compressed by an AFM*
MACPHERSON BARLOW, Benjamin

- POS-70 (G)* *Alteration of Bacterial Cell Elemental Concentrations by Environmental Influences as Determined by Laser-Induced Breakdown Spectroscopy*
MALENFANT, Dylan
- POS-71 (G) *Stacking of Red Blood Cells due to Depletion Effects*
Nehring, Austin
- POS-72 *Plasma-Based Coatings in Biomaterial Engineering*
WOLFE, Sean

PLASMA PHYSICS /
PHYSIQUE DES PLASMAS (DPP)

- POS-73 (G) *Filamentation and multiple filamentation in fused silica*
DUPRAS, Gabriel

THEORETICAL PHYSICS /
PHYSIQUE THÉORIQUE (DTP-DPT)

- POS-74 *Paczynski-Wiita-like potential for any static spherical black hole in metric theories of gravity*
FARAONI, Valerio
- POS-75 (G) *Random Matrices Approach to Neutrino Masses*
GIASSON, Nicolas
- POS-76 (G)* *Gravitationally induced quantum transitions*
LANDRY, Alexandre
- POS-77 *Super-Entropic Black Holes*
MANN, Robert
- POS-78 *Incompatibility of Determinism, Independence, and Objectivity*
MANN, Robert
- POS-79 *Spacetime in Everett's interpretation of quantum mechanics*
MARCHILDON, Louis
- POS-80 *First and second order Viriel coefficients for a gas of anyons*
NEBIA, Faïza
- POS-81 (G)* *Scalar fields in a shell: the response of an Unruh-Dewitt detector inside, and what it means for us outside*
NG, Keith
- POS-82 (G)* *A Holographic Model for Quantum Critical Responses*
SIERENS, Todd
- POS-83 (G)* *Gravitational Screens as Quasi-local Observers*
SIMOVIC, Filip

PARTICLE PHYSICS /
PHYSIQUE DES PARTICULES (PPD)

- POS-84 (G)* *Cover gas board for the SNO+ Universal Interface*
BARNARD, Zachariah
- POS-85 (G) *Search for single production of a vector-like quark via a heavy gluon in the $4b$ final state with the ATLAS detector in pp collisions at $\sqrt{s} = 8$ TeV*
DALLAIRE, Frederick
- POS-86 (G)* *Bubbles: A Model And Formation Process Within Superheated Liquid Bubble Chambers*
LE BLANC, Alexandre
- POS-87 *Present and Future Lead-based Supernova Detectors*
VIRTUE, Clarence
- POS-88 *Cryogenic Underground TEst facility (CUTE) at SNOLAB*
ZHANG, Xiaohu

Presenter Index / Index des conférenciers

-A-			
Abbas, Aazad (University of Ottawa)	T-POS	Chakrabarty, Joyprokash (Université du Québec, INRS-EMT)	T-POS
Ahluwalia, Gurinder Kaur (College of The North Atlantic)	T-POS	Charbonneau, Sylvain (University of Ottawa)	T-NRC
Ahmady, Mohammad (Mount Allison University)	R1-3	Charles, Christopher (University of Ottawa)	T-POS, T1-7
Ahmed, Asm S (University of Saskatchewan)	T-POS	Cheng, Xinru (University of Ottawa)	W1-9
Ahmed, Jamil (Quaid-i-Azam University, Islamabad)	M3-3	Cheriton, Ross (University of Ottawa)	T-POS
Ahrensmeier, Daria (Simon Fraser University)	R1-1, T1-2	Childress, Lillian (McGill University)	T3-3
Alkadour, Bassel (Memorial University of Newfoundland)	T-POS	Chubynsky, Mykyta V. (University of Ottawa)	R2-1
Alsop, Richard (McMaster University)	T1-1	Clancy, Patrick (University of Toronto)	R1-2
Amole, Chanpreet (Queen's University)	M3-5	Clark, Michael (Queen's University)	T3-5
Anis, Hanan (University of Ottawa)	R2-4	Cluff, Daniel (University of Exeter)	M3-7
Athieno, Racheal (University of New Brunswick)	M2-6	Connors, Martin (Athabasca University)	T-POS, M3-7, T1-4, W3-2, R2-6
Atkinson, Bill (Trent University)	W1-1	Corbellini, Luca (INRS-EMT)	T3-8
Aulakh, Kavleen (Carleton University)	R2-4	Corkum, Paul (University of Ottawa)	R-PLEN
Axelrod, Simon (Queen's University)	T-POS	Cornett, Jack (University of Ottawa)	W1-6
Azizyan, Mohammad Reza (Université de Sherbrooke)	W1-4	Corona Ugalde, Paulina (University of Waterloo)	T2-7
- B -		Cote, Guillaume (University of Ottawa)	T-POS
Bagger, Jonathan (TRIUMF)	S-TRIUMF	Crandles, David (Brock University)	W3-3
Bagheri, Mehran (University of Ottawa)	W2-1	Cruz, Steffen (University of British Columbia)	M2-1
Bahrami, Sahar (Concordia University)	W2-8	Cudmore, Elspeth (Carleton University)	T1-5
Barkanova, Svetlana (Acadia University)	T3-6	Cui, Xiaoyu (Canadian Light Source)	T1-3
Barnard, Zachariah (Laurentian University)	T-POS	Curry, Chandra (SLAC National Accelerator Laboratory/ University of Alberta)	T3-2
Bazylewski, Paul (University of Saskatchewan)	W2-6	Cushley, Alex (Royal Military College of Canada)	M2-6
Beaulieu, Alexandre (University of Victoria)	M2-5	Czajkowski, Andrzej (University of Ottawa)	W3-2
Beaulieu, Luc (Memorial University of Newfoundland)	W1-4	- D -	
Beaulieu, Luc (Université Laval)	R2-6	Dalencourt, Claire (Université Laval)	W1-6
Bechhoefer, John (Simon Fraser University)	R2-5	Dalidovich, Denis (Perimeter Institute)	R2-5
Beniac, Thomas (Brock University)	M3-4	Dallaire, Frederick (Université de Montréal)	T-POS
Bergevin, Christopher (York University)	T2-2	Danskin, Donald (Natural Resources Canada)	T2-4
Bernier, Nikita (TRIUMF)	M3-1	Das, Gautam (Lakehead University)	R1-5
Bhardwaj, Ravi (University of Ottawa)	M1-6	Dassoulas, James (University of Alberta)	R2-2
Bidaman, Harris (University of Guelph)	M2-1	Davids, Barry (TRIUMF)	T-POS
Binette, Vincent (Université de Montréal)	M3-6	de Cotret, René Laurent (McGill University)	T-POS
Blanchet-Chouinard, Guillaume (Université Laval)	W1-6	de Haan, Hendrick (University of Ontario Institute of Technology)	T2-2
Blokland, Ian (University of Alberta)	T1-2	de Jong, Samuel (University of Victoria)	M2-5
Bobbara, Sanyasi Rao (Queen's University)	W1-5	de Perio, Patrick (Columbia University)	R2-2
Boisvert, Jean-Sébastien (Université de Montréal)	T3-2	De Silva, Nimal (University of Ottawa)	R1-6
Bolen, Ryan (University of Ottawa)	T-POS	deKemp, Robert (uOttawa Heart Institute)	R1-4
Bongiovanni, Domenico (Institut national de la recherche scientifique)	T-POS	Dhirani, Al-Amin (University of Toronto)	R1-2, R2-6
Bouchard, Frédéric (University of Ottawa)	W1-9	Di Stefano, Philippe (Queen's University)	R2-3
Boudreault, Christian (Collège militaire royal de Saint-Jean / Université de Montréal)	T2-6	Dicaire, Marie-Claude (University of Ottawa)	T-POS
Boudreault, Richard (Polar Knowledge Canada)	R-MEDAL2	DiLoreto, Christopher (University of Windsor)	W1-9
Boulay, Mark (Carleton University)	T2-3	Dimitrakoudis, Stavros (University of Alberta)	M1-3
Boyd, Robert (University of Ottawa)	T3-3	Dixit, Viney (Université du Québec à Trois-Rivières)	T-POS
Braim, Mona (Memorial University of Newfoundland)	T-POS	do Amaral Oliveira, Amintor Dusko (University of Ottawa)	T1-3
Brenna, Wilson (University of Waterloo)	T1-8	Dolgaleva, Ksenia (University of Ottawa)	M2-3
Broerman, Benjamin (Queen's University)	M3-5	Downey, Tyler (Memorial University of Newfoundland)	T-POS
Bruening, Ralf (Mount Allison University)	T-POS	Drummond, James (Dalhousie University)	W2-3
Brunner, Thomas (McGill University)	M1-4	Dupras, Gabriel (University of Ottawa)	T-POS
Bruulsema, Colin (Laurentian University)	W2-4	Dupuis, Éric (Université de Montréal)	T2-7
Bukhari, Syed (Canadian Nuclear Laboratories)	T3-8	Durette, David (Université du Québec à Trois-Rivières)	W2-5
Burbadge, Christina (University of Guelph)	M2-1	Dydula, Christopher (Carleton University)	T-POS
Burchill, Johnathan (University of Calgary)	T-POS	- E -	
- C -		Earl, Kevin (Carleton University)	R2-3
Caballero, Olga (University of Guelph)	M3-1	Ebery, Ariel (Bishop's University)	T2-7
Cachazo, Freddy (Perimeter Institute)	R1-3, R-MEDAL1	Elfied, Khawla (Memorial University of Newfoundland)	T-POS
Caden, Erica (Laurentian University)	T1-5	Erlandson, Andrew (Canadian Nuclear Laboratories)	T-POS
Cadogan, Carolyn (The University of Western Ontario)	T1-3	Evstigneev, Mykhalo (Memorial University of Newfoundland)	T1-6
Cai, Bei (Queen's University)	R1-7	- F -	
Calà Lesina, Antonino (University of Ottawa)	R1-5, W1-9	Fahlman, Gregory (National Research Council)	T-NRC
Campbell, Eamonn (Trent University)	T-POS	Falamarzi Askarani, Mohsen (University of Calgary)	T2-5
Campbell, Melanie (University of Waterloo)	R2-4, T3-6		
Campbell, Robyn (Carleton University)	W2-8		

Fallows, Scott (University of Alberta)	R1-7	Ilott, Peter (NASA, Jet Propulsion Laboratory)	T-Special
Faraoni, Valerio (Bishop's University)	T-POS, W3-5	Ivanovic, Igor (Carleton University)	T-POS
Ferber, Torben (University of British Columbia)	W1-2	Iyer, Pavithran (Université de Sherbrooke)	T2-6
Fiori, Robyn (Natural Resources Canada)	W2-3		
Fitzpatrick, Matthew (Simon Fraser University)	W3-6	- J -	
Fontaine, Gilles (Université de Montréal)	W-MEDAL2	Jacobs, Russell (Beckman Institute/Caltech Brain Imaging Center)	T-PLEN
Ford, Richard (SNOLAB)	T1-5	James, Gordon (University of Calgary)	T1-4
Fortin, Jean-Francois (Université Laval)	M3-3	Jamieson, Blair (University of Winnipeg)	W2-4
Francisco, Barbara (University of Ottawa)	T1-7	Jang, Deok Hyun (Ryerson University)	T-POS
Fraser, James M. (Queen's University)	T-MEDAL	Jelic, Vedran (University of Alberta)	W2-7
Freund, Benjamin (Université de Montréal)	R1-6	Jeon, Sangyong (McGill University)	T3-1
Friesen, Tim (Aarhus University (DK))	T3-1	Jigmeddorj, Badamsambuu (University of Guelph)	T2-1
Froese Fischer, Charlotte (NIST)	T-POS, T2-8, T3-6	Johnston, Lynda (National Research Council)	T-NRC
		Joly, Nicolas (Max-Planck Institute for the Science of Light)	T2-5
- G -		Joós, Bela (University of Ottawa)	T2-2
Gagné, Alexandre (Canadian Nuclear Laboratories)	T1-7	Jooya, Kais (University of British Columbia)	T-POS
Gagnon, Louis-Guillaume (Université de Montréal)	W1-2	Julian, Stephen (University of Toronto)	R1-2
Gagnon, Olivier (Canada Foundation for Innovation)	S-CFI		
Galarneau, Pierre (INO, Québec)	T3-7	- K -	
Galstian, Tigran (Université Laval)	T-POS, M2-2	Kalita, Mukut (TRIUMF)	W1-3
Gauvin-Ndiaye, Chloé (Université de Sherbrooke)	T-POS	Kalman, Calvin (Concordia University)	W3-2
Gerbier, Gilles (Queen's University)	T3-5	Kamaha, Alvine (Queen's University)	R1-7
Gharbi, Mohamed Amine (McGill University)	M1-5	Kamble, Amol (Queen Elizabeth Scholar, UQTR)	T-POS
Ghezelbash, Masoud (University of Saskatchewan)	T2-7	Kanungo, Rituparna (Saint Mary's University)	T2-1
Giampa, Pietro (Queen's University)	W2-8	Karlen, Dean (U. Victoria and TRIUMF)	S-LRP
Giasson, Nicolas (Université Laval)	T-POS	Kaspi, Victoria (McGill University)	HERZBERG
Gillberg, Dag (Carleton University)	M2-5	Kazemian, Sina (The University of Western Ontario)	M2-7
Gillies, Rob (University of Calgary)	W2-3	Kazi, Zakir (University of Ottawa)	R1-6
Girard, Frédéric (Laurentian University)	T2-3, T-POS	Kedzierski, Wlodek (University of Windsor)	T-POS
Giroux, Guillaume (Queen's University)	R1-7	Keeshan, Ben (Carleton University)	W1-3
Gobeil, Thomas (Université de Sherbrooke)	T-POS	Kherani, Nazir (University of Toronto)	W1-5
Gobeil, Yan (McGill University)	M3-3	Khondker, Adree (McMaster University)	M2-2
Goncharova, Lyudmila (The University of Western Ontario)	W1-5	Kieser, William (University of Ottawa)	W1-6
Gornea, Razvan (Carleton University)	T1-5	Kikawa, Tatsuya (TRIUMF)	W1-3
Goyal, Sidhartha (University of Toronto)	M3-6	Knudsen, David (University of Calgary)	T1-4
Grant, Darren (University of Alberta)	R2-2	Ko, Dong Hyuk (University of Ottawa/NRC)	M2-3
Grimmer, Daniel (University of Waterloo)	R2-5	Konaka, Akira (TRIUMF)	R-MEDAL3, W2-4
Guay, Jean-Michel (University of Ottawa)	T3-8	Kootte, Brian (TRIUMF)	T-POS
Guerboukha, Hichem (École Polytechnique de Montréal)	T1-7, W2-7	Korkusinski, Marek (National Research Council of Canada)	M2-7
Guérin, Nicolas (Canadian Nuclear Laboratories)	R1-6	Kraus, Christine (SNOLAB)	M1-4
Gunther, Aimee (Institute for Quantum Computing, University of Waterloo)	T-POS	Kulchitsky, Bohdan (University of Waterloo)	T-POS
		Kunstatter, Gabor (University of Winnipeg)	W3-5
- H -		- L -	
Hajlaoui, Thameur (Institut national de la recherche scientifique)	T-POS	Laferriere, Patrick (University of Ottawa/NRC)	T-POS
Haley, Craig (Honeywell Aerospace)	T3-7	Lagowski, Jolanta (Memorial University of Newfoundland)	T2-6
Hammond, TJ (University of Ottawa/NRC)	T-POS	Lamb, Robert (Canadian Light Source)	W3-4
Harden, James L. (University of Ottawa)	T1-6, W2-1	Lan, Yang (TRIUMF/UBC)	M1-4
Hayward Sierens, Lauren (University of Waterloo)	T-POS	Landry, Alexandre (Université de Montréal)	T-POS
Hemer, Eva (University of Ottawa)	M1-2	Lariviere, Dominic (Université Laval)	W1-6
Hennigar, Robie (University of Waterloo)	T1-8	Larochelle, Jean-Simon (Université de Montréal)	W2-5
Heron, Paula (University of Washington)	T2-8	Lascar, Daniel (TRIUMF)	W3-1
Heusen, Martin (University of Manitoba)	M3-7	Lasry, Nathaniel (John Abbott College)	W2-2, W3-2
Hickey, Joseph (University of Calgary)	M2-4	Lawson, Ian (SNOLAB)	R1-7
Hildebrand, William (University of Manitoba)	W2-6	Le Blanc, Alexandre (Laurentian University)	T-POS
Hill, Ewan Chin (University of Victoria)	W1-2	Leblanc, Alexa (Université Laval)	T-POS
Hill, Richard (TRIUMF, Perimeter Institute and University of Chicago)	T1-5	LeBlanc, Lindsay (University of Alberta)	W3-6
Himbert, Sebastian (McMaster University)	M2-2, W1-4	Lecavalier, Marie-Eve (Université Laval)	W1-6
Ho, Xuan-Long (Yuan Ze University)	W2-5	Lee, Larry (TRIUMF)	W1-3
Hocking, Wayne (The University of Western Ontario)	M1-3	Lees, Ronald M. (University of New Brunswick)	M3-2
Hopkins, Cameron (The University of Western Ontario)	M1-5	Li, Jingwen (École Polytechnique de Montréal)	T2-5
Hu, Yang (University of Waterloo)	W1-4	Li, Ye (The University of Western Ontario)	T-POS, W1-5
Huber, Garth (University of Regina)	T3-1	Li, Zhengyan (JASLab, NRC and University of Ottawa)	W1-9
		Lin, Francis (University of Manitoba)	W2-1
- I -		Linhananta, Apichart (Lakehead University)	M3-6
Ignacio, Maxime (University of Ottawa)	R1-4	Lirette, Frédéric (Cégep de Rivière-du-Loup)	T-POS
		Lomidze, Levan (University of Calgary)	T3-9
		Longtin, Andre (University of Ottawa)	T2-2

PRESENTER INDEX

Lovejoy, Shaun (McGill University)	M2-6	- O -	
Lu, Qing-Bin (University of Waterloo)	M2-2	Odell, Roger (Carleton University)	M3-5
Luican-Mayer, Adina (University of Ottawa)	M1-2	Olin, Art (TRIUMF)	R2-3
Luke, Graeme (McMaster University)	W1-1	O'Meara, Joanne (University of Guelph)	W2-2
- M -		Orford, Rodney (McGill University)	M3-1
Ma, Tian (École Polytechnique de Montréal)	T-POS	Otto, Martin (McGill University)	T-POS
Macdonald, Andrew (University of British Columbia)	M3-4	Ouellet, Christian (Carleton University)	R1-7
MacDonald, Cole (University of Ottawa)	R1-6	Oyekola, Oyedemi (Private)	T1-4, W2-3
MacLeod, Katarin (St. Francis Xavier University)	W2-2	Ozaki, Tsuneyuki (INRS-EMT)	W2-7
MacPherson Barlow, Benjamin (University of Ottawa)	T-POS	Ozfidan, Isil (University of Alberta)	W1-1, W2-6
Madej, Alan (NRC/ MSS, York University, University of Ottawa)	M3-2	- P -	
Magill, Martin (University of Ontario Institute of Technology)	W2-1	Panfilov, Ivan (University of Waterloo)	W3-3
Malcolm, John (University of Guelph)	T-POS	Pantalony, David (Canada Science and Technology Museum)	W1-7
Malenfant, Dylan (University of Windsor)	T-POS	Paranjape, Manu (Université de Montréal)	M3-3
Manalo, Jacob (University of Windsor)	M1-7	Park, Joochun (Jason) (University of British Columbia/ TRIUMF)	M2-1
Manjarres, Joany (York University)	W1-2	Pashartis, Christopher (McMaster University)	T-POS
Mann, Robert (University of Waterloo)	T-POS, T2-7	Patel, Abhishek Kumar (Université du Québec à Trois-Rivières)	T-POS
Mansour, Firas (University of Waterloo)	R1-1	Peng, Lv (Université du Québec à Trois-Rivières)	T-POS
Maraghechi, Borna (Ryerson University)	T1-1, W2-1	Perron, Patrick (Royal Military College of Canada)	M1-3
Marchand, Richard (University of Alberta)	W1-8	Perry, Gareth (University of Calgary)	T1-4
Marchildon, Louis (Université du Québec à Trois-Rivières)	T-POS	Pfeiffer, Harald (CITA, University of Toronto)	T1-8
Marleau, Luc (Université Laval)	R1-3	Pinto, Mario (NSERC)	T-NSERC1
Martin, Jeffery (University of Winnipeg)	R2-3	Plamondon, Réjean (École Polytechnique de Montréal)	W3-5
Martin, Melanie (University of Winnipeg)	R1-4	Poduska, Kristin (Memorial University of Newfoundland)	M1-2
Martynenko, Oleg (York University)	M1-3	Podviianiuk, Ruslan (Laurentian University)	R1-7
Marzlin, Karl-Peter (St. Francis Xavier University)	M2-4	Poirier, Louis (National Research Council of Canada)	R2-6
Matanska, Penka (Carleton University)	T-POS	Polson, James (University of Prince Edward Island)	R2-1
Matsuura, Naomi (University of Toronto)	M3-4	Ponte, Pedro (University of Waterloo/Perimeter Institute)	T-POS
Mauel, Jennifer (Queen's University)	T3-5	Poon, Joyce (University of Toronto)	T2-5
Mavriplis, Catherine (University of Ottawa)	T2-8	Pospelov, Maxim (University of Victoria)	R1-3
Mbarek, Saoussen (University of Waterloo)	T1-8	Predoi-Cross, Adriana (University of Lethbridge)	M1-7, M3-2, T3-6
McCaffrey, Anthony (University of New Brunswick)	M2-6	Prikryl, P. (University of New Brunswick, Natural Resources Canada)	M1-3, W2-3
McElroy, Thomas (University of Alberta)	W2-8	Przedborski, Michelle (Brock University)	T2-6
McGrath, Paul (University of Waterloo)	M2-4	Pugh, Christopher (University of Waterloo/Institute for Quantum Computing)	T3-3, T-POS
McGuirk, Jeffrey (Simon Fraser University)	W3-6	- R -	
Mehdiyev, Rashid (Carleton University)	R1-7	Rajai, Payman (University of Ottawa)	R2-4
Meiers, Michael (University of Waterloo)	T1-8	Ramchandran, Arun (University of Toronto)	M1-5
Melko, Roger (University of Waterloo)	M-MEDAL	Rangan, Chitra (University of Windsor)	W2-2
Ménard, Jean-Michel (University of Ottawa, Max Planck Institute for the Science of Light)	W1-5, W1-9, W3-3	Raslan, Amany (Trent University)	W1-1
Mezaoui, Hichem (University of New Brunswick)	T3-9	Rau, Wolfgang (Queen's University)	T3-5
Mielnichuk, Courtney (for the DEAP Collaboration, University of Alberta)	W2-8	Razafindramanana, Volatiana (Université du Québec à Trois-Rivières)	W2-5
Mikula, Paul (University of Manitoba)	W1-1	Reedyk, Maureen (Brock University)	T-POS
Milner-Bolotin, Marina (University of British Columbia)	R1-1	Retiere, Fabrice (TRIUMF)	W2-4
Mitra, Pitam (University of Alberta)	T2-3	Reymbaut, Alexis (Université de Sherbrooke)	R1-2
Mitrovic, Bozidar (Brock University)	W1-1	Rinkel, Pierre (Université de Sherbrooke)	W3-3
Moewes, Alexander (University of Saskatchewan)	W2-5	Ritz, Adam (University of Victoria)	S-SAPES
Moradi, Hamid (Carleton University)	W1-4	Rodrigues, Matthew (Health Canada)	R1-6
Moreau, Christian (Université Concordia)	T3-7	Rogers, Michael (University of Ottawa)	T1-6
Morris, Denis (Université de Sherbrooke)	T-POS	Rollin, Etienne (Carleton University)	T1-2
Muecher, Dennis (University of Guelph)	W3-1	Rowell, Nelson (National Research Council)	T-NRC
Muzar, Edward (Queen's University)	T-POS	Roy, René (Université Laval)	T3-1, W1-7
- N -		Rubel, Oleg (McMaster University)	R2-1
Naccache, Rafik (Concordia University)	M3-4	Rumleskie, Janet (Laurentian University)	M1-4
Navaeipour, Parvin (Queen's University)	M2-7	Runyon, Matthew (University of Ottawa)	M2-3
Nebia, Faïza (Cégep du Vieux Montréal)	T-POS	- S -	
Nehring, Austin (University of Ontario Institute of Technology)	T-POS	Saaltink, Rebecca (University of Ottawa)	M2-3
Newman, Scott (University of Ottawa)	T-POS	Sandapen, Ruben (Acadia University)	R1-3
Ng, Keith (University of Waterloo)	T-POS	Sbeih, Suhad (Memorial University of Newfoundland)	M1-5
Noble, Tony (Queen's University)	M3-5		
Nokes, Charles D. A. (University of Alberta)	T2-4		
Norman-Hobbs, Simon (TRIUMF)	M3-5		

Schatz, Hendrik (National Superconducting Cyclotron Laboratory)	M-PLEN	- W -	Wallin, Stefan (Memorial University of Newfoundland)	M3-6
Scielzo, Nicholas (Lawrence Livermore National Laboratory)	W1-3	Wang, Hanyang (University of Ottawa)	T2-6	
Sean, David (University of Ottawa)	M2-2	Weber, Stephen (Carleton University)	W1-2	
Selen, Mats (University of Illinois)	T1-2	Wee, Pamela (Agilent Technologies Canada Inc.)	W1-6	
Sham, Tsun (Western University)	T1-3	Wei, Chen (Memorial University of Newfoundland)	T-POS	
Sharp, Jonathan (University of Alberta)	R1-1, T1-1, T3-4	Wei, John (University of Toronto)	T3-8	
Shaswary, Elyas (Ryerson University)	T1-1	Whelan, Bill (University of Prince Edward Island)	T-NSERC3, T-RPP, R2-4	
Shen, Chun (McGill University)	T3-1	White, Jonathon David (Yuan Ze University)	T-POS	
Shen, Yangyang (University of Calgary)	T2-4	Wiacek, Aldona (Saint Mary's University)	W1-8	
Shepherd, Gordon (York University)	W1-8	Wijesekara, Himasha (The University of Western Ontario)	M1-2	
Shepherd, Marianna (York University)	W1-8	Williams, Jonathan (Simon Fraser University)	T2-1	
Sherafati, Nima (Carleton University)	M2-5	Wilson-Ewing, Edward (Max Planck Institute for Gravitational Physics (Albert Einstein))	T3-4	
Shi, An-Chang (McMaster University)	R2-1	Wolfe, Sean (Plasmionique Inc.)	T-POS	
Siaj, Mohamed (Université du Québec à Montréal)	M2-7	Wortis, Rachel (Trent University)	R1-2	
Sierens, Todd (Perimeter Institute)	T-POS	Wu, Frank(Tongan) (Simon Fraser University)	T-POS	
Silva, Carlos (Université de Montréal)	W-MEDAL1	Wu, Jiashu (University of Calgary)	T2-4	
Simmons, Stephanie (Simon Fraser University)	R2-5	Wu, Shihao (Memorial University Grenfell Campus)	W2-8	
Simovic, Filip (University of Waterloo)	DTP	Wunch, Debra (University of Toronto)	W1-8	
Sirker, Jesko (University of Manitoba)	R1-2			
Slepkov, Aaron (Trent University)	R1-1	- X -		
Smith, Alexander (University of Waterloo)	M3-3	Xu, Li-Hong (University of New Brunswick)	M1-7, T-NSERC2	
Smith, Nigel (SNOLAB)	S-SNOLAB			
Smith, Paul (University of Saskatchewan)	W1-3	- Y -		
Spencer, Stephen (Memorial University of Newfoundland)	T-POS	Yamani, Zahra (Canadian Nuclear Laboratories)	R1-2	
Spierings, David (University of Toronto)	W3-6	Yang, Bing (University of Calgary)	T2-4	
Spyrou, Artemis (Michigan State University)	M3-1	Yau, Andrew (University of Calgary)	T3-9	
Starosta, Krzysztof (Simon Fraser University)	T2-1, W3-1	Yee, Susan (Brock University)	T-POS	
Steele, Tom (University of Saskatchewan)	W3-5			
Steinitz, Michael (St. Francis Xavier University)	T3-6	- Z -		
Stern, Mark (McGill University)	T-POS	Zarkeshian, Parisa (University of Calgary)	T-POS	
Stolow, Albert (University of Ottawa)	T-NRC	Zhang, Qinrong (University of Waterloo)	W1-4	
Stukel, Matthew (Queens University)	T3-5	Zhang, Xiaohe (Queen's University)	T-POS	
Svenne, Juris (University of Manitoba)	R1-3	Zhao, Xiaolei (University of Ottawa)	W1-6	
		Zheng, Chao (McMaster University)	T-POS	
- T -		Zidar, Tammy (University of Guelph)	T2-1	
Tanaka, Hirohisa A. (University of British Columbia)	W2-4	Ziprick, Jonathan (University of New Brunswick)	T3-4	
Teymurazyan, Aram (University of Regina)	R1-4			
Themens, David (University of New Brunswick)	M2-6			
Thibault, Simon (Université Laval)	W3-4			
Thiessen, Jonathan (Lawson Health Research Institute)	R1-4			
Thomson, Rowan (Carleton University)	W1-4			
Tran, Sophie (University of Toronto)	W1-8			
Tremblay, Anthony (Université Laval)	T-POS			
Trepanier, Hubert (Université de Montréal)	M2-5			
Trevisanutto, Joshua (Lakehead University)	T2-2			
Turak, Ayse (McMaster University)	W1-5			
Turko, Joseph (University of Guelph)	M2-1			
- U -				
Underwood, Ryan (Queen's University)	T2-3			
- V -				
Vachon, Brigitte (McGill University)	T2-8, R2-3			
Valiunas, Jonas (Lakehead University)	R1-5			
van der Kolk, Jarno Nicolaas (University of Ottawa)	M2-3, W1-9			
VanBommel, Scott (University of Guelph)	R1-6			
Varin, Charles (University of Ottawa)	M1-6			
Variola, Fabio (University of Ottawa)	T1-6			
Vazquez de Sola, Francisco Andres (Queen's University)	T2-3			
Veloce, Laurelle Maria (University of Toronto)	W1-2			
Vernon, Frank (Scripps Institute of Oceanography, UCSD, La Jolla, California)	M3-7			
Virtue, Clarence (Laurentian University)	T-POS			
von Krosigk, Belina (University of British Columbia)	R1-7			
Vutha, Amar (University of Toronto)	M1-7			

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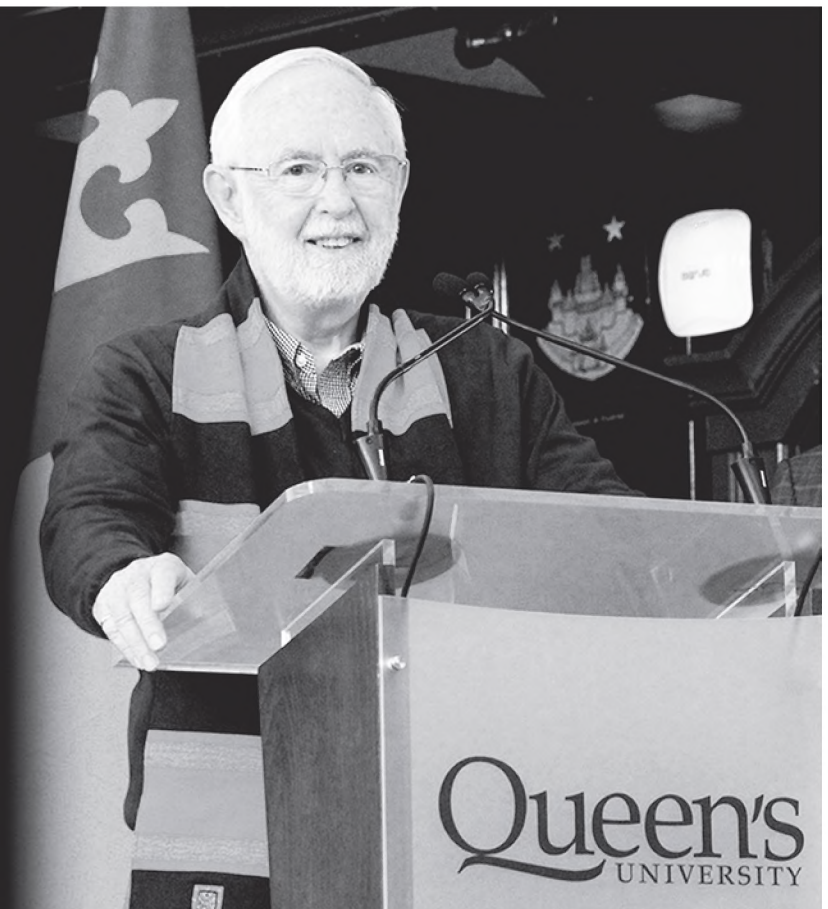
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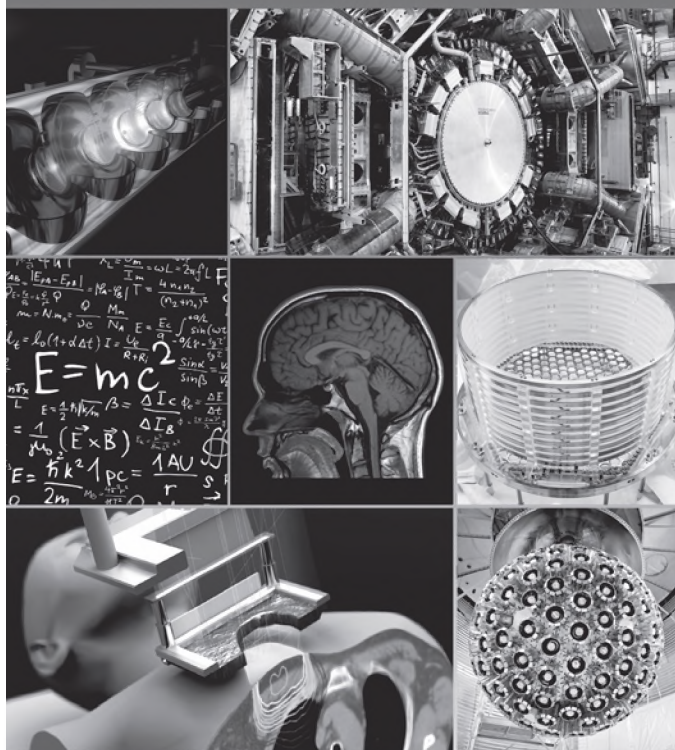
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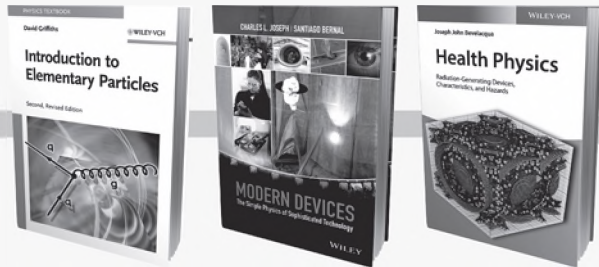
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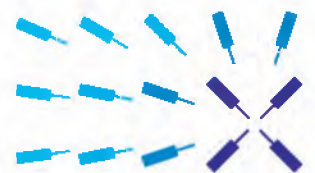
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