

POSTER SESSION – WEDNESDAY MAY 31

18h00-19h30

**SESSION D’AFFICHES – MERCREDI 31 MAY Queen's Athletics
& Recreation Centre (ARC)**

DIVISION OF ATOMIC, MOLECULAR AND OPTICAL PHYSICS, CANADA /
DIVISION DE LA PHYSIQUE ATOMIQUE, MOLÉCULAIRE ET PHOTONIQUE, CANADA
(DAMOPC-DPAMPC)

- POS-1 (G)* N(2P) Production in electron-N₂ Collisions
DECH, Jeffery; University of Windsor
- POS-2 Loading laser-cooled atoms into a cavity formed by a hollow-core fiber capped with a pair of dielectric metasurfaces
VENUTURUMILLI, Sai Sreesh; University of Waterloo
- POS-3 (G)* On The Laser-Induced Fluorescence Spectroscopy of Two Ruthenium-Bearing Molecules: RuX (X=F, Cl)
ZARRINGHALAM, Hanif; University of New Brunswick
- POS-4 (G) Cross-phase modulation with laser cooled atoms confined inside a hollow-core fiber
VICKERS, Cameron; University of Waterloo
- POS-5 (G)* Generating Squeezed Thermal States via Parametric Down Conversion in Lossy Cavities
SEIFOORY, Hossein; Queen’s University
- POS-6 (G)* Quantum repeaters with single rare-earth ions in telecommunication wavelengths
KIMIAEE ASADI, Faezeh; University of Calgary
- POS-7 (G)* Relativistic Corrections to Nonrelativistic Electric Dipole Transitions
SAMI, Maha; VENN, Daniel University of Windsor
- POS-8 (U)* Arduino-controlled triple-grating high-resolution spectrometer
QIU, Jiawei; University of Waterloo
- POS-9 Polaron master equation theory of an on-demand quantum dot single-photon source
through cavity-assisted stimulated adiabatic Raman passage (STIRAP)
GUSTIN, Chris; Queen's University
- POS-10 (U)* Radio-frequency ion trap with an integrated optical cavity
SILVERTHORNE, Turner; University of Waterloo
- POS-11 Metals for Induced Transmission Optical Filters
Teare, Scott; New Mexico Tech
- POS-12 Visualization of state determination via weak measurements
IVANOVIC, Igor; Carleton University
- POS-13 Application of coupled mode theory to phase-shift and intensity measurements in optical microresonators
BARNES, Jack; Queen's University
- POS-14 (G)* Nano-antenna fabrication through porous anodic alumina template
Souissi, Fathi; Queen's university

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

- POS-15 Spatial correlation of auroral zone geomagnetic variations
JACKEL, Brian; University of Calgary
- POS-16 Along-track ion flow estimates from Swarm Langmuir probes
BURCHILL, Jonathan; University of Calgary
- POS-17 Convection of plasma density features in the ionosphere
DE BOER, John; Royal Military College of Canada
- POS-18 An e-POP multi-instrument study of a stable double-arc
JAMES, Gordon; University of Calgary

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

- POS-19 (G) A DFT Investigation of Conjugated Polymers/Oligomers and Fullerenes
Interactions in Bulk Heterojunction Organic Solar Cells
AYOUB, Sarah; LAGOWSKI, Jolanta; Memorial University of Newfoundland
- POS-20 (G)* Visualizing in situ Electrochemical Doping in Luminescent Conjugated Polymers
HU, Shiyu; Queen's University
- POS-21 (G) The determination of GaAs phononic crystal waveguide SAW mode frequencies
MUZAR, Edward; Queen's University
- POS-22 (G)* Perovskite Solar Cells Fabricated with Various Buffer Layers: Relationship
Between Carrier Lifetime and Observed J-V Hysteresis
ELCOCK, William; University of Saskatchewan
- POS-23 Spin current transport in Ta: FMR studies in py/Ta and py/Ta/py/Fe structures
prepared by sputtering
HEINRICH, Bret; Simon Fraser University
- POS-24 (G)* Periodic Squeezing in a Polariton Josephson Junction
ANDERSON, Mitchell D.; École Polytechnique Fédérale de Lausanne

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

- POS-25 (G)* Progress on Muon Tomography for nuclear security and safeguards
ERLANDSON, Andrew; Carleton University

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

- POS-26 (G)* Internal Backgrounds in Water Phase of SNO+
LAM, Ian; Queens University

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

- POS-27 ^2H NMR studies of bacterial membrane perturbation by antimicrobial polypeptides
MORROW, Michael R.; Memorial University of Newfoundland
- POS-28 (U)* A "two-peak" pattern observed in the high-frequency neural oscillations of a
weakly electric fish
BERRADA, Amina; University of Ottawa
- POS-29 (U)* Impact of Insertion and Deletion Mutations on Protein Thermodynamics
WILKINS, Ryan; Memorial University of Newfoundland
- POS-30 Broadband Vibration Detection in Tissue Phantoms using a Fiber Fabry-Perot
Cavity
SIJIA, Li; Queens's University
- POS-31 (G)* Characterization and evaluation of femtosecond laser-induced periodic surface
structure with different periodicities on titanium to improve osseointegration of
dental and orthopedic implants
EXIR, Hourieh; University of Ottawa
- POS-32 Giant Axonal Neuropathy alters the structure of keratin intermediate filaments in
human hair
SOOMRO, Asfia; McMaster University

**PLASMA PHYSICS /
PHYSIQUE DES PLASMAS (DPP)**

- POS-33 (G)* Vibration Analysis of a Dry Dilution Refrigerator at the Queen's SuperCDMS Test
Facility
GERMOND, Richard; Queen's University

**THEORETICAL PHYSICS /
PHYSIQUE THÉORIQUE (DTP-DPT)**

- POS-34 (U)* Quantum Reference Frames, 1+1 Newtonian Gravity, and Entanglement in a 3-
Body System
DAVIS, Jack; University of Waterloo
- POS-35 Atiyah-Hitchin in Einstein-Gauss-Bonnet Gravity
GHEZELBASH, Masoud; University of Saskatchewan

**PARTICLE PHYSICS /
PHYSIQUE DES PARTICULES (PPD)**

- POS-36 (G)* Radon Assays in SNO+
WOOSAREE, Pooja; Laurentian University
- POS-37 (G)* Process system bursts and cosmic ray muon events in DEAP-3600
ERLANDSON, Andrew; Carleton University
- POS-38 (G)* Effect of systematics on the KDK experiment
SQUILLARI, Pierre; Queen's University

- POS-39 (G)* Radial Fiducialization in CDMSlite
UNDERWOOD, Ryan; Queen's University
- POS-40 (G)* Position Reconstruction and Monte Carlo Tuning in DEAP-3600
RETHMEIER, Carl; Carleton University
- POS-41 (G)* A Study of Radioactive Argon Isotopes in DEAP-3600
DUNFORD, Matthew; Carleton University
- POS-42 (G)* Acrylic compatibility testing for the SNO+ Experiment
BARTLETT, Daniel; Queen's University
- POS-43 (G) A review of statistical methods in the discovery of the Higgs boson at the LHC
FRANCISCO, Carla; Université Laval