McMaster University ENGINEERING

WINTER 2018 ENGINEERING PHYSICS SEMINAR SERIES

Venue:
A.N. Bourns Science Building (ABB) 271
Wednesday, March 28th from 11:30 AM- 2:20 PM

Department of Engineering Physics
in the Faculty of Engineering at
McMaster University, Canada.

3H04 and 4H04 Research Project Symposium

Dylan Genuth-Okon | Undergraduate Student, Engineering Physics & Management Co-op, Level 3

FIRST SPEAKER

Using the facilities of the Centre for Emerging Device Technologies (CEDT), solar-blind detectors were fabricated, using ultra-thin silicon active layers for detection of UV wavelengths. The process for fabricating these devices uses a range of micro-fabrication techniques that will be discussed in detail.

Amit Rao | Undergraduate Student, Engineering Physics, Level 3

SECOND SPEAKER

Presentation will cover the growth characteristics of thin tipped GaP nanowires, and the design and measurement of sheet resistance involving these nanowires.

Martin Zelikovsky | Undergraduate Student, Engineering Physics, Level 3

THIRD SPEAKER

The focus of this talk will be the unique solar simulator designed by Dr. Kleiman and Dr. Chiran, the new possibilities it offers, and the current stage of its production.

Stacie Moltner | Undergraduate Student, Engineering Physics, Level 4

FOURTH SPEAKER

An unsolved problem in physics is probing quantum effects at the Planck scale. In string theory, T-duality shows that a dimension compactified into a circle of radius on the Planck scale is equivalent to one with very large radius.

Colin Beswick | Undergraduate Student, Engineering Physics and Society, Level 5

FIFTH SPEAKER

Using polymer physics to improve the quality of perovskite nanoparticle layers on silicon.

Ashley Gilbank | Undergraduate Student, Engineering Physics, Level 4

SIXTH SPEAKER

The effect of germanium ion implantation on the growth rate of silicon oxide was investigated as parameters such as oxidation time, temperature, and germanium implantation dose were varied.

Megan Goodland | Undergraduate Student, Engineering Physics Co-op, Level 4

SEVENTH SPEAKER

Magnetic confinement nuclear fusion devices will require neutron-multiplying materials as a part of a breeding blanket used to produce tritium fuel. Two-dimensional neutron flux distributions were calculated for a cross section of ITER using proposed wall materials.