

SEMINAR NOTICE

*Department of Physics and Engineering Physics
University of Saskatchewan*

SPEAKER: Dr. Arundhati Dasgupta, CAP Lecturer
University of Lethbridge

TOPIC: *Quantum Field Theory with Star Operators*

DATE: March 27th, 2018

TIME: 3:30-4:30 p.m.

PLACE: Physics 103

ABSTRACT:

Quantum Mechanics and its relativistic version quantum field theory (qft) are formulated for inertial observers. Accelerated observers require new physics, and we introduce new operators in qft known as star operators which allow thermalization processes and entropy production. As general relativity is the theory of accelerated observers, these provide a new approach to quantization of gravity. We show how Hawking radiation from black holes can be explained using these new operators and provide insight on emergent space-time.

Short bio:

I am a Theoretical Physicist working in Quantum Gravity and Quantum Gravity Phenomenology. I am also actively involved in promoting the cause of women in physics.

Coffee and Cookies will be served in Physics lounge at 3:00 p.m. for those attending the seminar.