

UIC COLLOQUIUM

Department of Physics

Wednesday, September 4, 2019

“Neutrino: Chronicles of an Aloof Witness”

Professor Goran Senjanovic

*Abdus Salam International Centre for Theoretical Physics
Trieste, Italy*

As you read this, trillions of neutrinos from the sun are passing through every square cm of your body, doing no harm whatsoever. They convey information from the depth of the universe and have been present from its very birth. Neutrinos have captured the imagination of physicists from the time they were first conceived and have repeatedly provided a window into new physics.

A question stood out for decades: Are neutrinos massive like their seemingly inseparable electron siblings? It took almost seventy years to obtain the positive answer. I review here past and present efforts to probe the origin of neutrino mass and show that this is deeply related to the fundamental question of left-right symmetry in nature. This ongoing story will take us from the beginnings of elementary particle physics all the way to the frontiers of the Large Hadron Collider.

The Department of Physics Colloquium will be held at 3pm in 238 SES.

**Refreshments will be served from 2:45 pm to 3pm outside of room 238 SES*