

Contribution ID: 2620

Canadian Association of Physicists

Association canadienne des physiciens et physiciens

Type: Invited Speaker / Conférencier(ère) invité(e)

## Lost horizons: modelling the formation and evaporation of non-singular black holes.

Monday 3 June 2019 13:45 (30 minutes)

Thanks to recent gravitational wave observations, we have evidence for the validity of Einstein's theory in the strong field region, including near black hole event horizons. The existence of black holes gives rise to theoretical issues, such as the necessary existence of singularities and the related information loss conundrum, that will hopefully be resolved by quantum mechanics. In the absence of a complete testable theory of quantum gravity, it is useful to study simplified models that hopefully retain essential, relevant features of the full theory. After a brief introduction to the subject, I will describe recent work on a class of such models that designed to describe the quantum dynamics of singularity free spherical black hole formation and evaporation.

**Author:** Dr KUNSTATTER, Gabor (University of Winnipeg)

Presenter: Dr KUNSTATTER, Gabor (University of Winnipeg)

Session Classification: M2-8 General Relativity I (DTP) | Relativité générale I (DPT)

Track Classification: Theoretical Physics / Physique théorique (DTP-DPT)