



Contribution ID: 323

Type: **Oral Presentation**

Generalized and Extended Uncertainty Principles and their impact onto the Hawking radiation

Wednesday 28 August 2019 11:30 (30 minutes)

I will briefly present the main ideas of the Generalized Uncertainty Principle (GUP) and the Extended Uncertainty Principle (EUP). Then, first I will discuss the impact of GUP onto the Bekenstein entropy and the Hawking temperature and show how GUP influences the Hawking radiation leaving a remnant of a radiating black hole. I will also show that when GUP is applied, the Hawking radiation does not necessarily have to be sparse when a black hole approaches the Planck mass. Finally, I will present the influence of EUP on the Bekenstein entropy and the Hawking radiation for Rindler and cosmological spacetimes. Some interesting relations between black hole thermodynamics and the principle of maximum tension will also be uncovered.

Primary author: DABROWSKI, Mariusz (University of Szczecin)

Presenter: DABROWSKI, Mariusz (University of Szczecin)

Session Classification: Workshop on New physics paradigms after Higgs and gravitational wave discoveries