

JOINT TUFTS/MIT COSMOLOGY SEMINAR

Quantum Gravitational Corrections to Particle Creation by Black Holes and the Information Paradox

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In this talk I present our solution to the information paradox published in Phys.Rev.Lett. 128 (2022) 11, 111301 and Phys.Lett.B 827 (2022) 136995 (see EPL 139 (2022) 4, 49001 for a review). I show why Mathur theorem does not apply when quantum gravitational effects and macroscopic superposition are taken into account. I show that this leads to a unitary evolution of the black hole evaporation. Finally, I present our recent calculation of quantum gravitational corrections to Hawking amplitude (<https://doi.org/10.1016/j.physletb.2023.137820>) which leads to a non-thermal emission spectrum.

Tuesday, May 9, 2023, 2:30 pm

Zoom link will be distributed to joint cosmology seminar mailing list. See <https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar> to join.

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