



ID contributo: 50

Tipo: **Flash Parallel Talk**

# Neutrino flavor evolution in dense astrophysical sources

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Neutrinos play a fundamental role in core-collapse supernovae and compact binary mergers. In such dense environments, the coherent forward scattering of neutrinos on each other makes the flavor evolution a non-linear phenomenon. Using a quantum-kinetic approach, we model the neutrino flavor transformation in the presence of neutrino advection, neutrino-matter collisions, and neutrino self-interactions. In this talk, I will explore the impact of inhomogeneities arising in the matter background and temporal perturbations in the fast flavor evolution.

**Autore principale:** CORNELIUS, Marie (Niels Bohr Institute, University of Copenhagen)

**Coautore:** TAMBORRA, Irene (Niels Bohr Institute); SHALGAR, Shashank (Niels Bohr Institute)

**Relatore:** CORNELIUS, Marie (Niels Bohr Institute, University of Copenhagen)

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