

Collective Neutrino Oscillations in the Presence of Collisions

Friday, 1 June 2018 17:50 (20 minutes)

In dense astrophysical environments, the evolution of neutrino flavor is non-linear which can lead to many interesting phenomena. However, this non-linear evolution of neutrino flavor also called the “collective neutrino oscillations” is only beginning to be understood, especially in conjunction with collisions. I will discuss the effect of neutrino back-scattering in the interior of a core-collapse supernova using a simplified model.

E-mail

shashankshalgar@gmail.com

Primary author: Dr SHALGAR, Shashank (Los Alamos National Laboratory)

Co-authors: Dr PARIS, Mark (Los Alamos National Laboratory); Dr CIRIGLIANO, Vincenzo (Los Alamos National Laboratory)

Presenter: Dr SHALGAR, Shashank (Los Alamos National Laboratory)

Session Classification: NMNM / TSEI

Track Classification: NMNM