LABORATORI NAZIONALI DEL GRAN SASSO

SEMINAR ANNOUNCEMENT

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"Supernova neutrino spectra and collective flavor transitions"

Core-collapse supernovae offer a unique laboratory to study peculiar effects of neutrino-neutrino interactions. For a few seconds after the explosion, the high neutrino density turns such weak interactions into a source of strong couplings among neutrinos of different energies and flavor. We shall give an overview of these fascinating "collective" phenomena, of their observable effects, and of the related open problems.