

# Neutrinos from natural sources

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- **Early Universe**
  - Cosmic neutrino background: prospects for detection
  - Neutrino flavor composition and impact on the nucleosynthesis
  - Absolute neutrino mass: prospects for measuring it
- **Geoneutrinos**
  - Flux and spectral measurements
  - Separation of U/Th contributions, flux & mantle contributions
  - Geographical spread
- **Solar**
  - CNO: solar metallicity, solar model
  - $^8\text{B}$  spectral shape: sensitivity to NSI, matter effects, day/night
  - Precision low-energy measurements (pp, pep): luminosity
- **Supernova**
  - Prospects for DSNB measurement
  - Galactic supernova: flavor composition, pointing, supernova mechanism, BSM physics
  - Pre-supernova neutrinos
- **Atmospheric**
  - Identifying prompt component
  - Neutrino flavor conversion physics
- **Extragalactic**
  - The origin of high energy neutrinos and the birthplace of cosmic rays
  - The physics of cosmic accelerators: neutrino flavour, energy spectrum, and BSM
  - Cosmogenic neutrinos: GZK neutrinos and cosmic ray composition
  - Cross sections at high energies