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## **Neutrino Flavor Conversions in Compact Astrophysical Objects**

Flavor conversions of neutrinos have the potential to dramatically change the inner workings of compact astrophysical objects as well as the synthesis of heavy elements. Notably, fast pairwise neutrino conversions are thought to be triggered in the core of compact objects, as a consequence of the very high neutrino densities and the shape of the angular distributions of neutrinos and antineutrinos, possibly leading to flavor decoherence. We present the first sophisticated numerical solution of neutrino flavor conversions and show that neutrino advection may hinder the development of fast conversions in compact astrophysical objects.

### **Mini-abstract**

Neutrino advection may hinder the development of fast neutrino conversions in compact objects.

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