Nuclear Physics in Astrophysics XI



Contribution ID: 85

Type: Invited talk

Stellar nucleosynthesis in explosive environments

Tuesday 17 September 2024 09:00 (25 minutes)

Explosive stellar environments such as novae, supernovae, x-ray bursts and neutron star mergers have been identified as possible candidate sites where the majority of the heavy elements are synthesized. Understanding the underlying mechanisms of the explosions can help to shed light on the observed chemical abundances at these sites. Accurate theoretical models of these environments can be used to compare with astronomical observations to gain insight in the underlying physics. Many of these stellar models suffer from large uncertainties in nuclear physics inputs such as nuclear masses, half-lives and reaction rates. Several highlights of experimental efforts from the nuclear physics community to constrain these uncertainties will be presented.

Primary author: JAYATISSA, Heshani (Los Alamos National Laboratory)Presenter: JAYATISSA, Heshani (Los Alamos National Laboratory)Session Classification: Plenary Session