

Nuclei in the Cosmos (NIC XVII)



Contribution ID: 178

Type: **Oral**

Nuclear Physics of Accreting Neutron Stars

Friday, 22 September 2023 15:00 (20 minutes)

I will review the current understanding of the nuclear physics of accreting neutron stars, including the rp-process and processes involving neutron rich nuclei, and their relation to observables such as X-ray bursts and the cooling of transiently accreting neutron stars. This will include new results from experiments on rp-process reactions and measurements related to crust Urca processes, modeling results using updated reaction libraries, nuclear physics sensitivity studies, and an overview of the new opportunities opened up by new radioactive beam facilities such as FRIB.

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Session Classification: Nuclear properties for astrophysics

Track Classification: Novae and X-ray bursts