

ASTROPHYSICS SEMINAR SERIES

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LANL

Tuesday, April 30 12:30 pm - Rm 184 NSH

Astrophysical aspects of r-process nucleosynthesis in neutron star mergers

The r-process is believed to be responsible for the production of roughly half the heavy elements above iron on the periodic table. Despite its importance, the astrophysical location where the r-process may occur is still debated. A promising location for the formation of the heavy elements occurs in the ejecta of neutron star mergers. I will discuss several aspects of recent work on these events including outflow from accretion disks, morphology and compositional considerations as well as the possibility for gamma-rays from long-lived radioactive species to be measured with future space missions.



PHYSICS