

Nuclear Astrophysics at the Notre Dame Nuclear Science Lab

Monday, June 10, 2024 3:00 PM (30 minutes)

There is a distinguished history of nuclear astrophysics research at the Notre Dame Nuclear Science Lab (NSL). This has been fostered by University investment and strong support from the National Science Foundation. The NSL provides the research base for some 20 Notre Dame faculty members and approximately 35 graduate students as well as supporting the research programs of a number of external users. The laboratory hosts a number of unique facilities and instruments that help facilitate astrophysical research such as the St. George recoil separator coupled to the high-intensity 5U accelerator, the worlds-only triple solenoid in-flight radioactive beam facility, and one of only three operating Enge split-pole spectrometers in the U.S. The NSL maintains three on-site accelerators, which can operate simultaneously and continuously as well as the only underground nuclear accelerator in the U.S. at the SURF facility in South Dakota. The current research program at the NSL will be presented along with plans for future instrument upgrades and additions.

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