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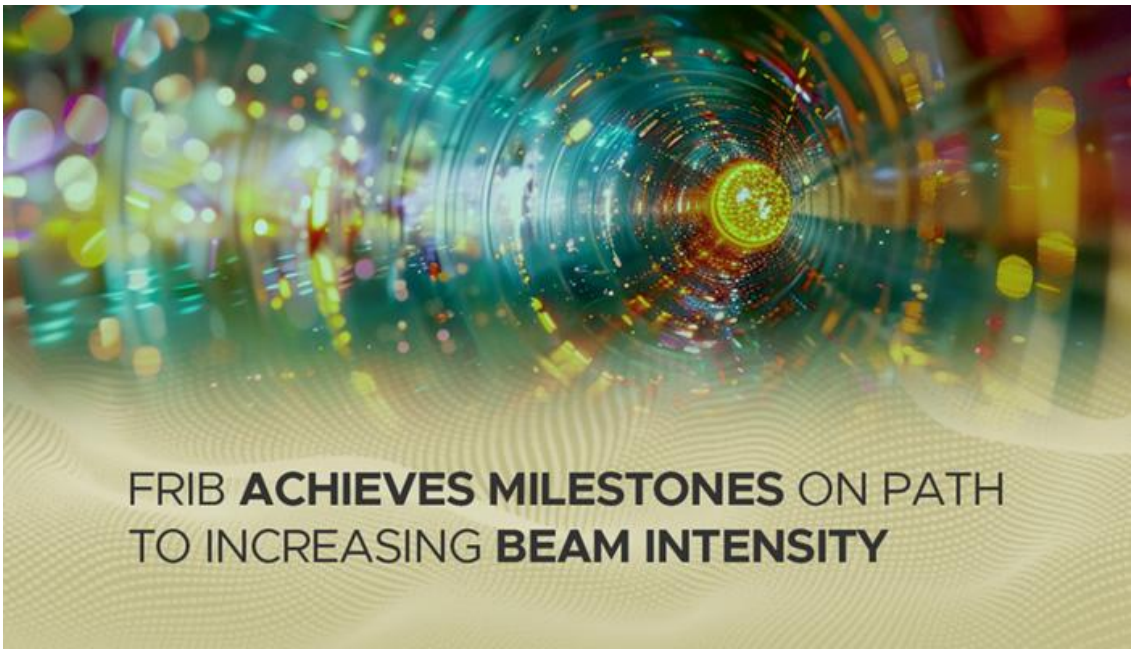
FRIB LABORATORY UPDATE for USERS

October 2024



FRIB achieved a pair of milestones recently, delivering the world's highest heavy-ion beam power and simultaneously accelerating five charge states of particle beams. These milestones further advance FRIB's commitment to meeting the needs of the scientific community. Read more

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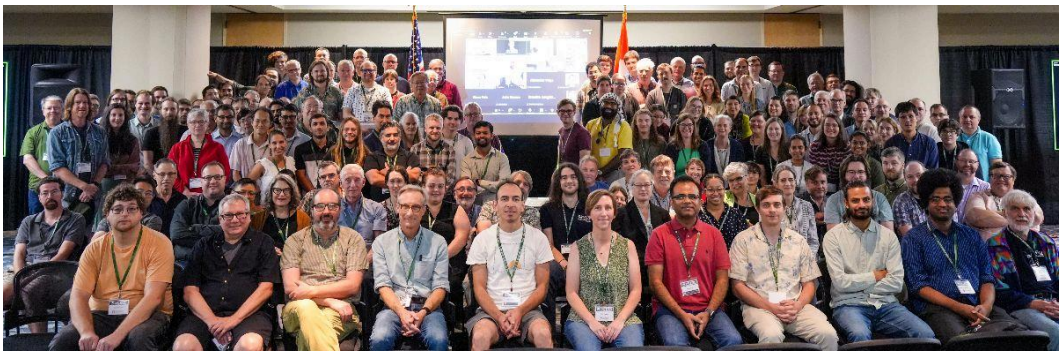

Low Energy Community Meeting

The 2024 Low Energy Community Meeting (LECM) took place on 7-9 August in Knoxville, Tenn. Over the course of the three days, 250 participants attended the meeting from 65 institutions and eight countries.. LECM 2024 included plenary sessions, four parallel working group sessions that included 17 individual working groups, and four workshops: Modular Neutron Array (MoNA) collaboration, fission studies with rare isotope beams, early careers, and public engagement. Read more

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Call for PAC3 proposals

FRIB has issued the call for proposals for non-proprietary research to be considered at the third meeting of the FRIB Program Advisory Committee (PAC3) in January 2025. Beam time for non-proprietary experiments is granted based on a merit review of proposals. There is no charge for users who are doing non-proprietary work, with the understanding that they are expected to publish their results. Read more

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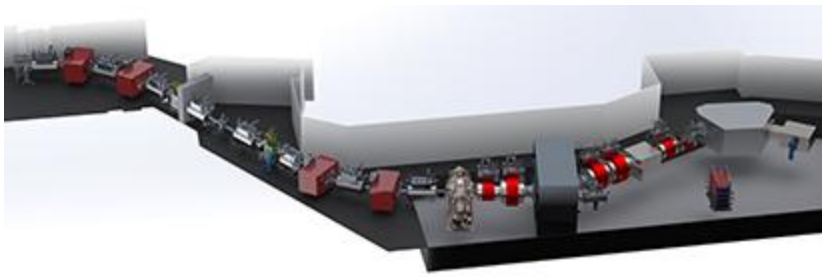
High Rigidity Spectrometer update



A successful director's review for the High Rigidity Spectrometer (HRS) took place in July. The review committee affirmed all the charges given to FRIB and recommended that we proceed to the DOE-SC Office of Project Assessment (OPA) Transmission Beam Line (HTBL) Project Critical Decision 2/3 (CD-2/3) Readiness Review 8-10 October. This move is one step closer to realizing HRS, which will substantially increase FRIB's scientific reach and productivity. HRS is a key instrument for FRIB and one that has been identified by the Nuclear Science Advisory Committee (NSAC) in the 2023 Long Range Plan for Nuclear Science. HRS is expected to bring together a user community of over 500 scientists. Read more about HRS.

French ambassador visit to FRIB highlights global efforts to advance forefront science, foster international relations

Laurent Bili, the Ambassador of France to the United States, visited FRIB on 22 July. In addition to marking the activities of the International Research Laboratory on Nuclear Physics and Astrophysics (IRL NPA) at MSU after one year, Bili's visit centered on highlighting the ongoing France and U.S. efforts that advance forefront science and foster positive international relations and global impact, including many MSU/France initiatives, collaborations, and programming.. IRL NPA is permanently staffed with French scientists dedicated to answering fundamental nuclear physics and astrophysics research questions. CNRS, an interdisciplinary public research organization under the administrative supervision of the French Ministry of Higher Education and Research, has nearly 80 international research laboratories worldwide, and IRL NPA at FRIB is the first dedicated to nuclear physics and astrophysics. Read more

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News

Chip-testing facility at FRIB will help to meet critical national need
The Michigan State University Board of Trustees authorized construction of a high-bay addition to the west end of FRIB. The addition will triple the testing capacity of the current chip-testing facility by providing two additional user vaults. The K500 Chip Testing Facility at FRIB will help meet the current national shortfall of testing capacity for advanced microelectronics, including those used for commercial spaceflight, wireless technology, and autonomous vehicles. Read more

In The News

Below are some recent FRIB-focused articles from selected outlets. For more, visit the FRIB website.

- **Advanced computing simulates fusion reaction processes**
  Phys.org: Researchers directly simulate the fusion of oxygen and carbon nuclei
- **Answering fundamental questions about our origins**
  Phys.org: Experimental data help unravel the mystery surrounding the creation of heavy elements in stars

Upcoming Events

Below is a list of upcoming events. For more, visit the FRIB website.

- 28 October-1 November – Dense Matter Equation of State from Nuclear Theory and Experiments Workshop
- 3 November – Advanced Studies Gateway at FRIB public Zoom talk: Chetan Nayak, technical fellow at Microsoft and professor of physics, UC Santa Barbara
- 24 November – Advanced Studies Gateway at FRIB public Zoom talk: Tracy Slatyer, Massachusetts Institute of Technology
- 8 December – Advanced Studies Gateway at FRIB public Zoom talk: Doris Tsao, University of California Berkeley

Michigan State University operates the Facility for Rare Isotope Beams (FRIB) as a user facility for the U.S. Department of Energy Office of Science (DOE-SC), with financial support from and furthering the mission of the DOE-SC Office of Nuclear Physics.

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