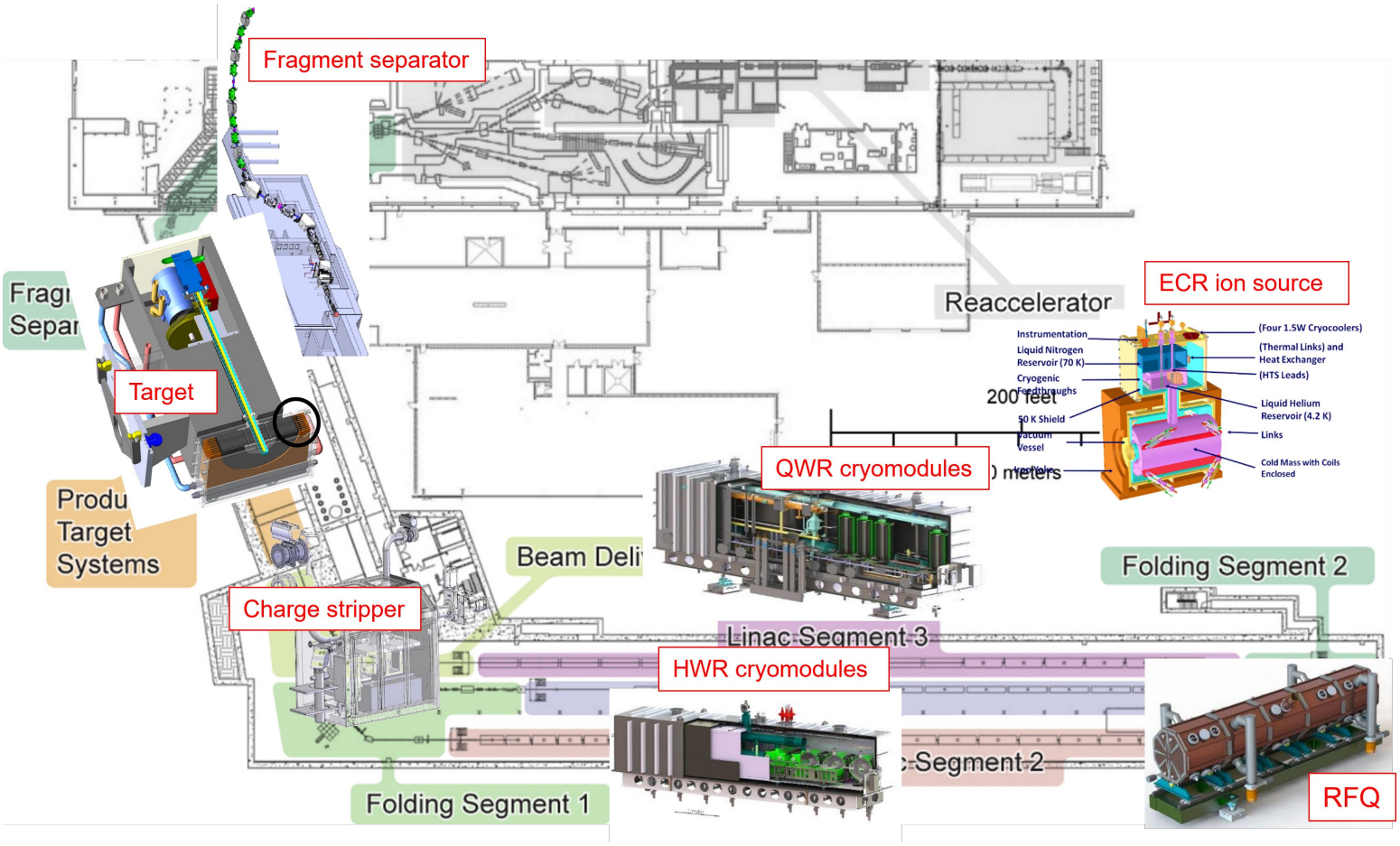
Accelerator Research in FRIB/MSU

MICHIGAN STATE UNIVERSITY

U.S. DEPARTMENT OF ENERGY | Office of Science

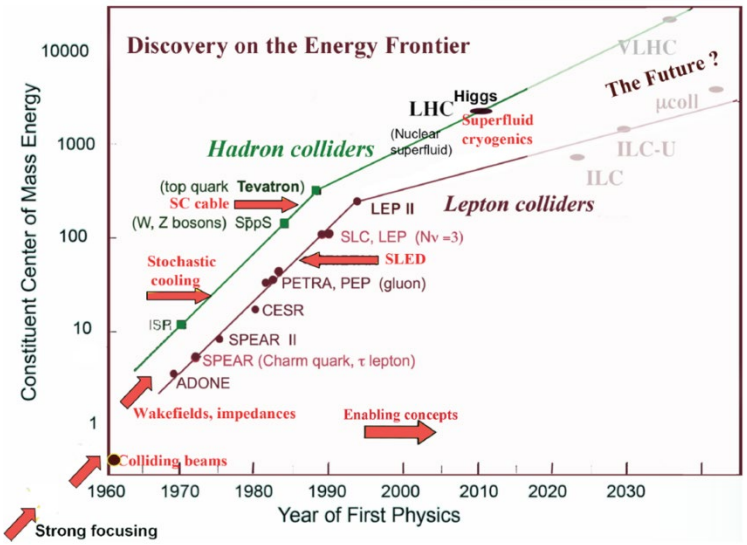
This material is based upon work supported by the U.S. Department of Energy Office of Science under Cooperative Agreement DE-SC0000661, the State of Michigan and Michigan State University. Michigan State University designs and establishes FRIB as a DOE Office of Science National User Facility in support of the mission of the Office of Nuclear Physics.

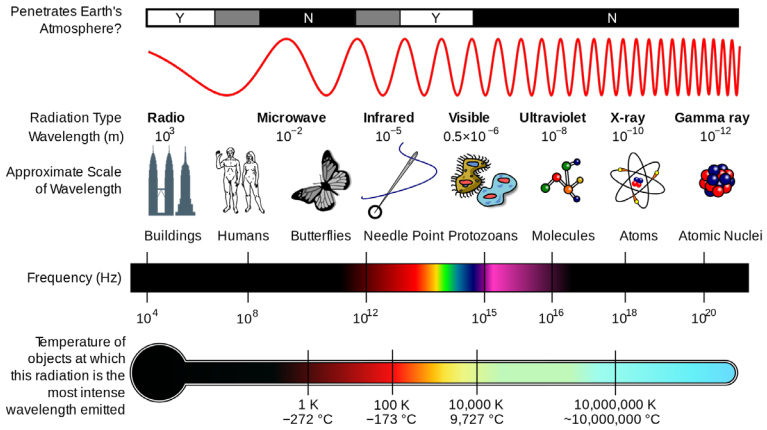
Why joining MSU for accelerator research?

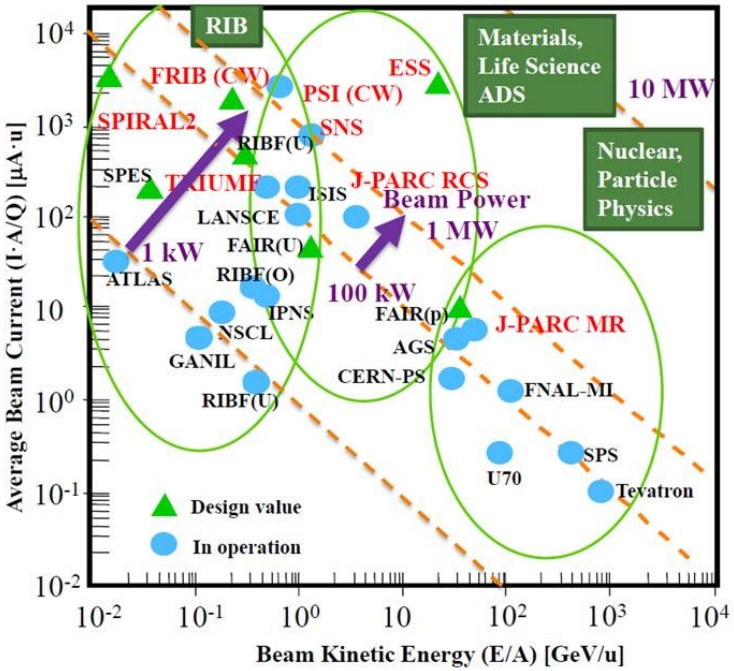


Most modern accelerator complex in US, state-of-art accelerator research.

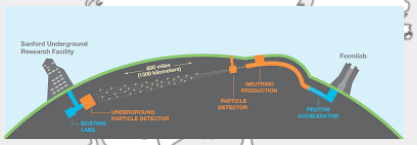
Accelerators enabled Scientific Research



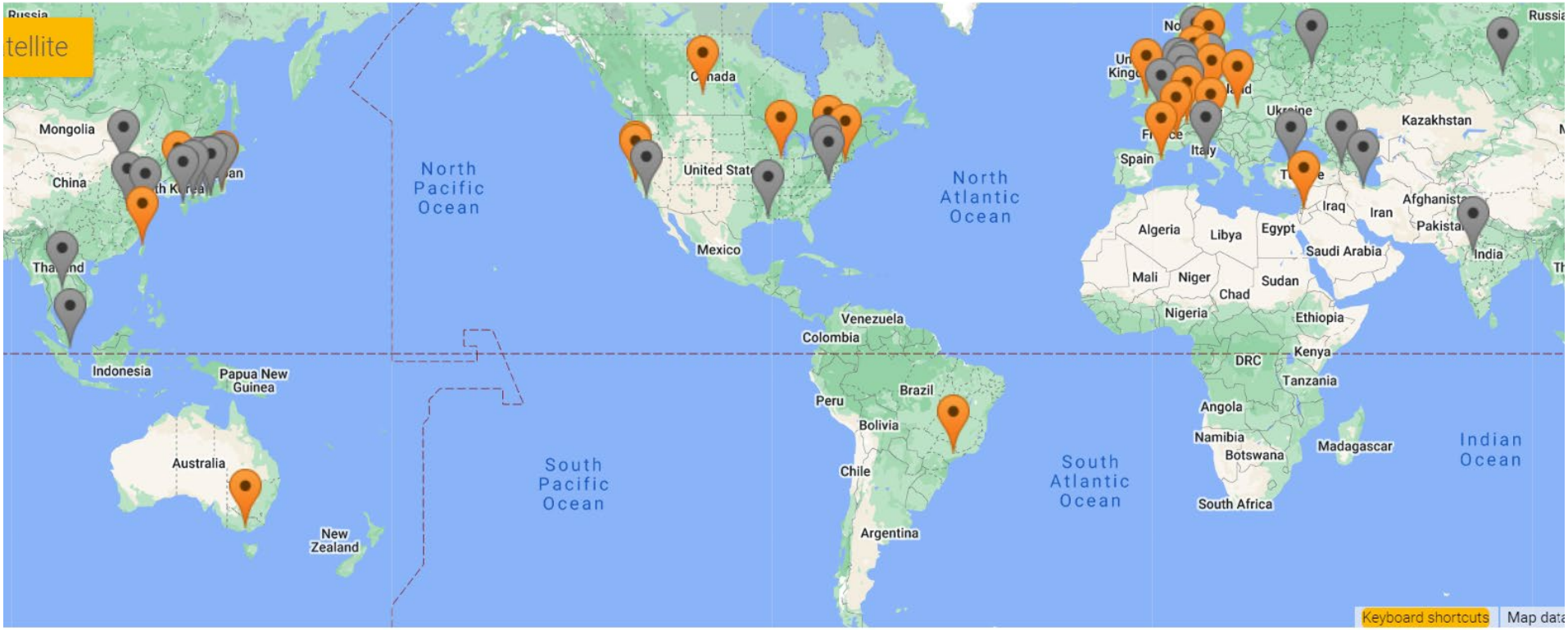




Accelerators for high energy research



Accelerators for light source



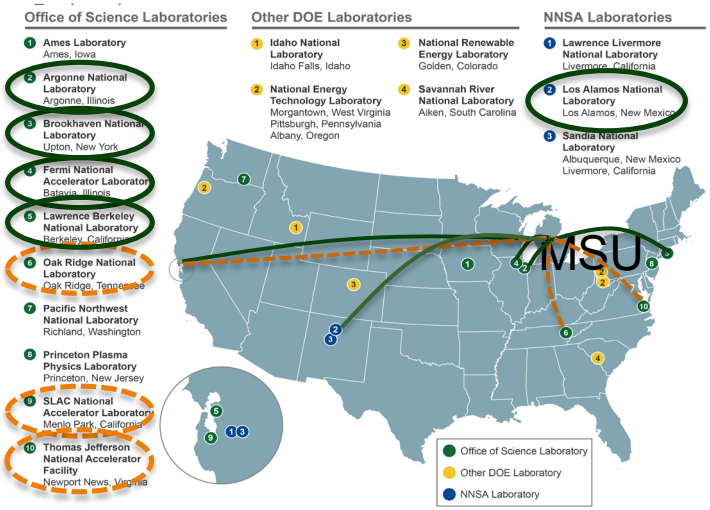
Why joining MSU for accelerator research?

ACCELERATOR SCIENCE AND ENGINEERING TRAINEESHIP PROGRAM

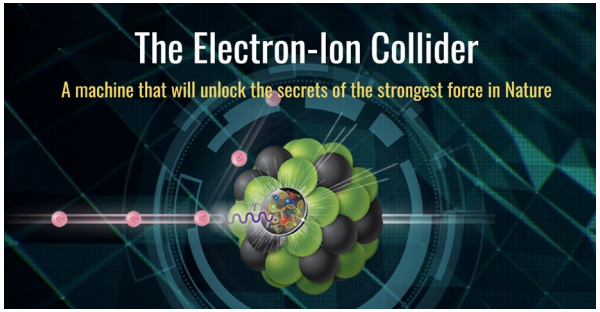
Students completing the curriculum in the MSU Accelerator Science and Engineering Traineeship (ASET) program are certified, well-trained, and ready for productive careers in areas where there are national critical workforce needs. The ASET program offers an exciting training opportunity in accelerator science and engineering for master's and PhD graduate students in physics and astronomy and engineering.

The ASET program at MSU leverages unique campus-based equipment, systems, and experts at FRIB, extensive ASET faculty and research supports in several MSU academic programs, and collaboration resources at national laboratories.

Partnering academic programs at MSU include the Department of Physics and Astronomy and the College of



- **More than 20 faculties in accelerator physics, RF/SRF system, Magnets, Diagnostics and control, Cryogenics, beam source.**
- **Cover diverse research directions in accelerator science**
- **Active collaborations with other accelerator facilities in national labs. Eg:**



Beam dynamics for on-going EIC project, next nuclear physics project after FRIB.

SRF gun for the LCLS-II HE project at SLAC

LCLS-II High Energy
(LCLS-II-HE)
a transformative X-ray laser for science