HB2025 - the 71st ICFA Advanced Beam Dynamics workshop on High-Intensity and High-Brightness Hadron Beams



Contribution ID: 173 Contribution code: MOLAA01 Type: Plenary Presentation

Exploring the Frontiers of Nuclear Physics with High-Intensity Ion Beams

Monday, October 20, 2025 9:30 AM (30 minutes)

Frontiers in nuclear physics and nuclear astrophysics center on understanding nuclei far from stability, the limits of nuclear matter, and the nuclear reactions that power stellar evolution and explosive phenomena across the Universe. Progress in these fields increasingly relies on high-intensity ion beams, which make it possible to measure extremely small cross sections and study rare isotopes that were previously inaccessible. This talk will highlight how emerging high-intensity beam facilities in China, such as JUNA, LEAF, CAFE, HIAF and CiADS, are opening unprecedented opportunities to directly measure key stellar reaction rates and to advance the frontiers of nuclear physics and nuclear astrophysics.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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Track Classification: WGs:Plenary presentations WGs A-E