



国立研究開発法人理化学研究所 仁科加速器科学研究センター
第322回 RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 322nd RIBF Nuclear Physics Seminar

Constraining the Equation of State via heavy ion collisions at the Radioactive Isotope Beam Factory

Professor William Lynch
(NSCL/FRIB and Michigan State University)

Nucleus–nucleus collisions provide the only means to experimentally probe the nuclear Equation of State at supra–saturation densities and determine how it depends on density and on the isospin asymmetry $\delta=(\rho_n-\rho_z)/(\rho_n+\rho_z)$. The first S π RIT TPC experimental campaign at RIKEN has provided constraints on the EoS and other transport phenomena at densities of approximately $\rho\approx 1.4\text{--}1.5\rho_0$. These results have recently been combined with other experimental and astronomical measurements to constrain the EoS at densities of $0.2\rho_0<\rho<3\rho_0$. Despite this progress, open questions remain. We plan to investigate some of them during our new experiment at the RIBF facility measuring collisions at higher incident energies.

May 23rd (Tue), 2023 13:30 ~
via Hybrid (Zoom + RIBF Hall)



* The talk will be given in English language.
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