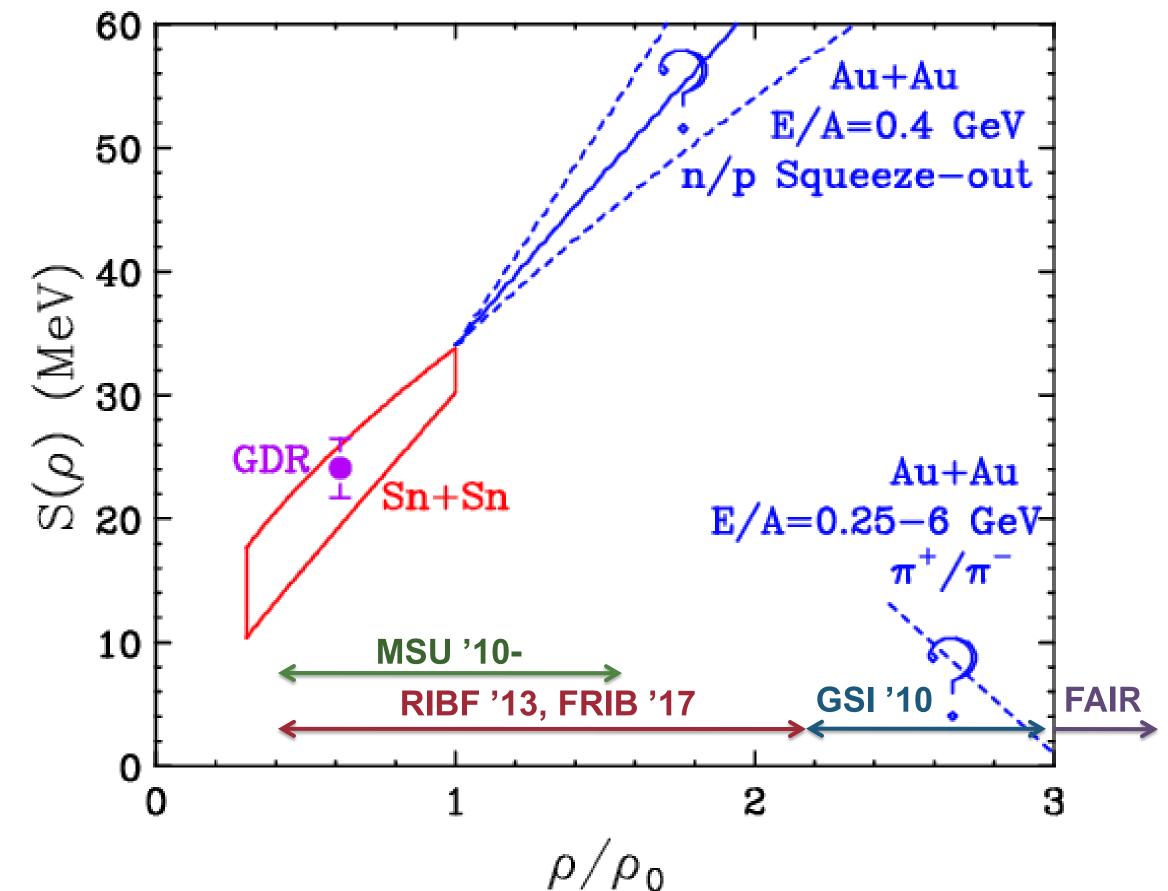


- Constrain the symmetry energy in the nuclear equation of state over a range of densities
  - Directly addresses FRIB science benchmark: "nature of neutron stars and dense nuclear matter"
- Conduct a series of experiments at unique

facilities in the U.S., Japan, and Germany to explore densities 0.4  $\rho_0 < \rho < 3 \rho_0$ 

- Formed a strong international team of experimental and theoretical scientists to carry out and interpret experiments
- Attract and train early U.S. career scientists, and help them build strong international ties





Artist's rendition of a neutron star

http://www.dailygalaxy.com/photos/uncategorized/2007/08/21/neutron\_star\_1\_2.jpg

## Status of current constraints on the symmetry energy





Office of Science





