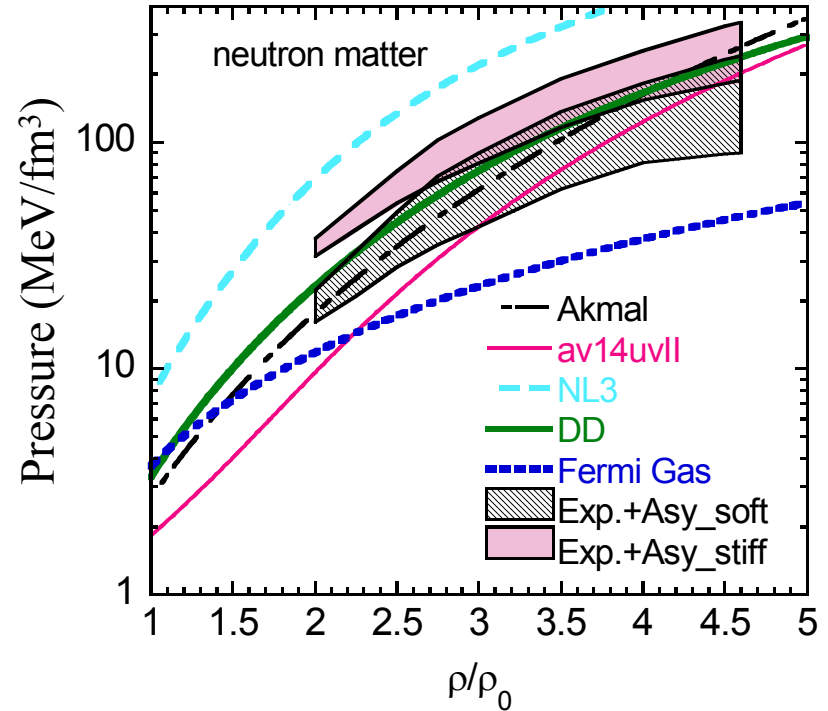
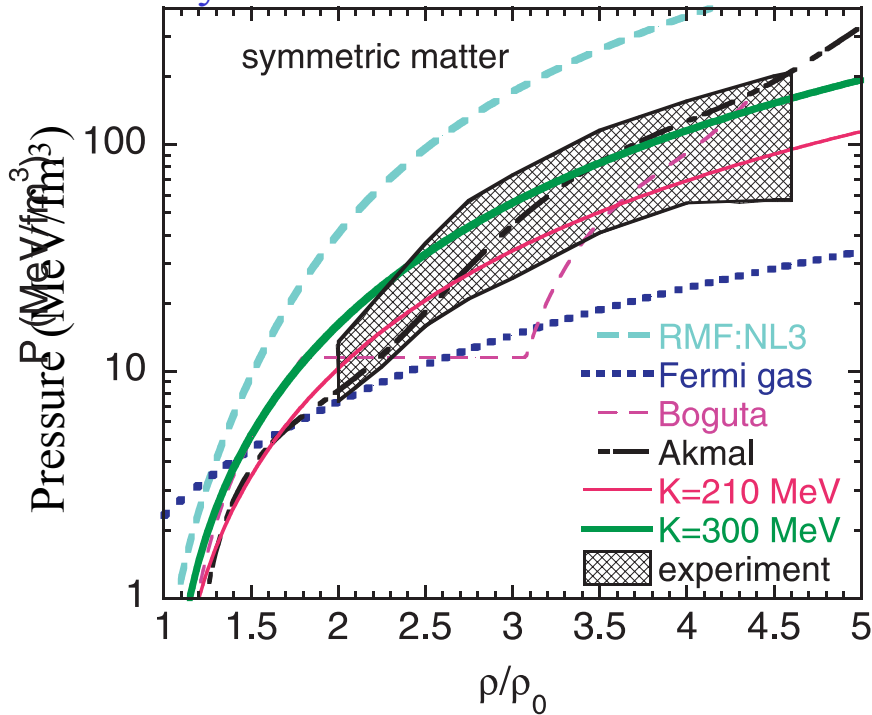


Constraints on Nuclear Equation of State

$$E(\rho, \delta) = E(\rho, 0) + S(\rho)\delta^2; \quad \delta = (\rho_n - \rho_p) / (\rho_n + \rho_p)$$

Symmetric matter



Results from Au+Au flow measurements include constraints in momentum dependence of the mean field and NN cross-sections

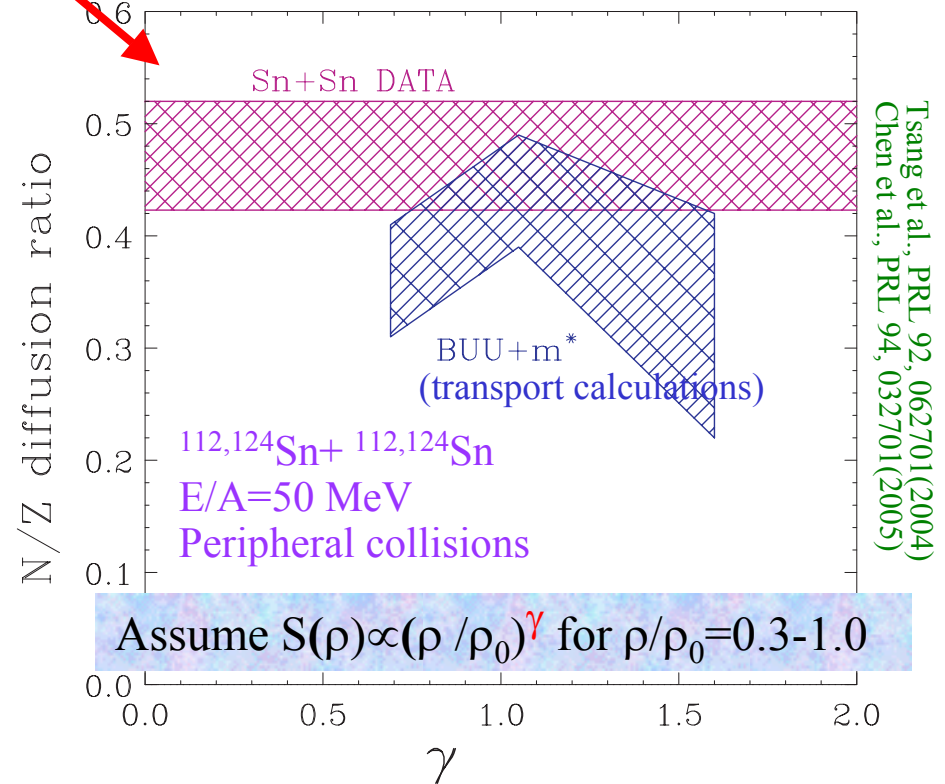
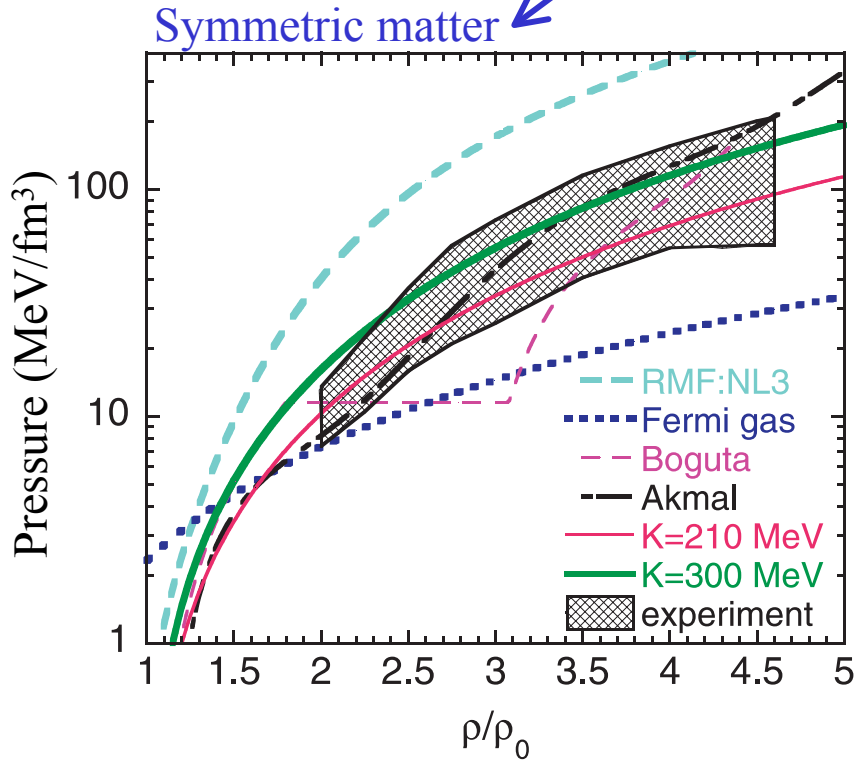
Danielewicz, Lacey, Lynch, Science 298,1592 (2002)

Uncertainty due to the density dependence of the asymmetry term is greater than that due to symmetric matter EOS.

Next challenge is to constraint $S(\rho)$ using heavy ion collisions.

Constraints on Nuclear Equation of State

$$E(\rho, \delta) = E(\rho, 0) + S(\rho)\delta^2; \quad \delta = (\rho_n - \rho_p) / (\rho_n + \rho_p)$$



Results from Au+Au flow measurements include constraints in momentum dependence of the mean field and NN cross-sections

Danielewicz, Lacey, Lynch, Science 298,1592 (2002)

Heavy Ion collisions are beginning to provide information about $S(\rho)$ which is key to the understanding of neutron stars.

New measurements should provide information about n and p effective masses and isospin dependence of NN collisions