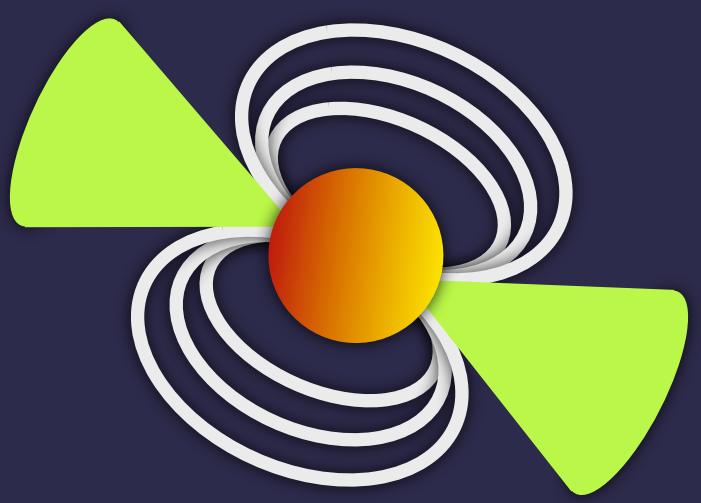




Pulsar Timing



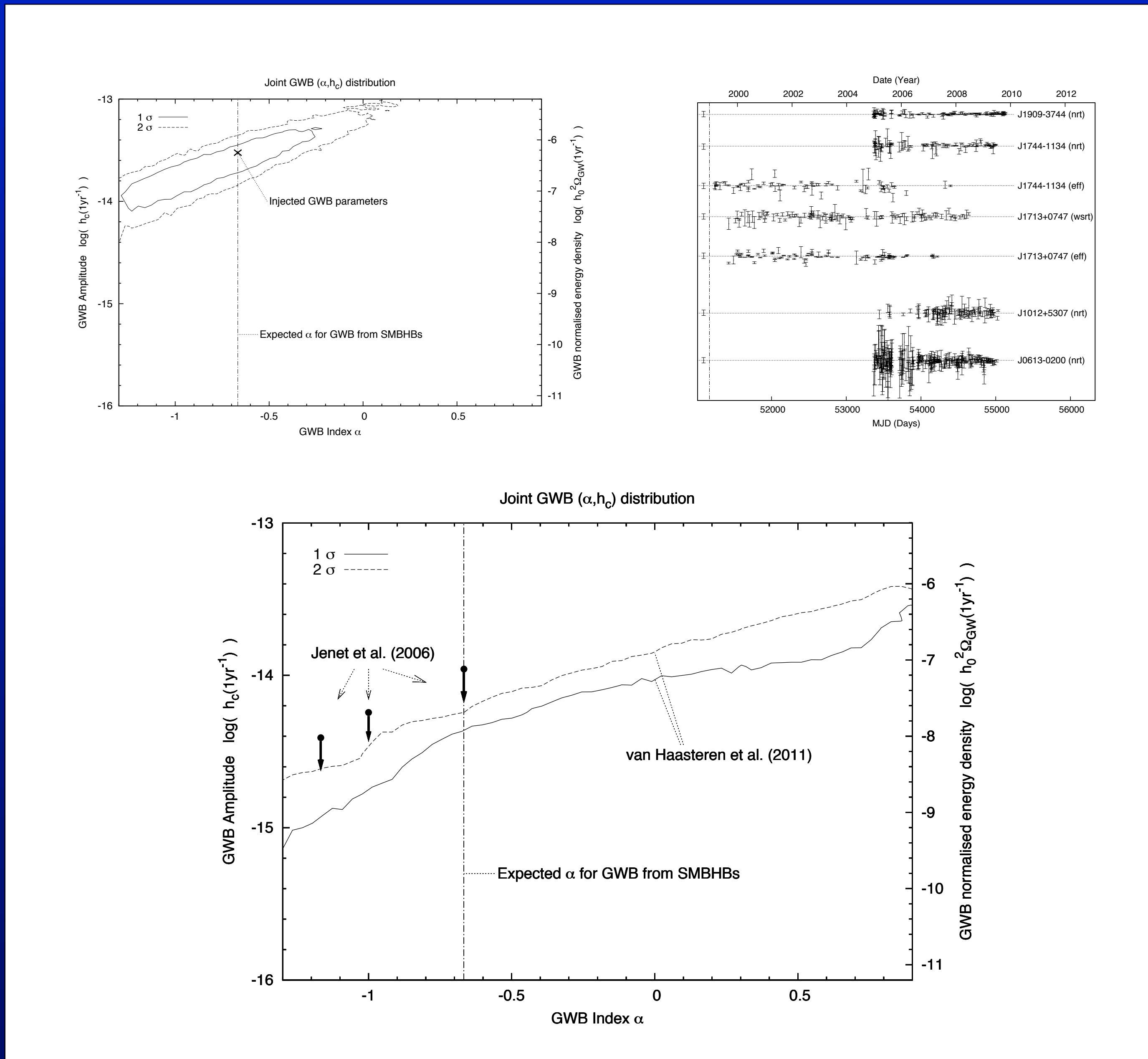
Testing Fundamental Physics with Astronomical Clocks

Pulsar Timing Arrays

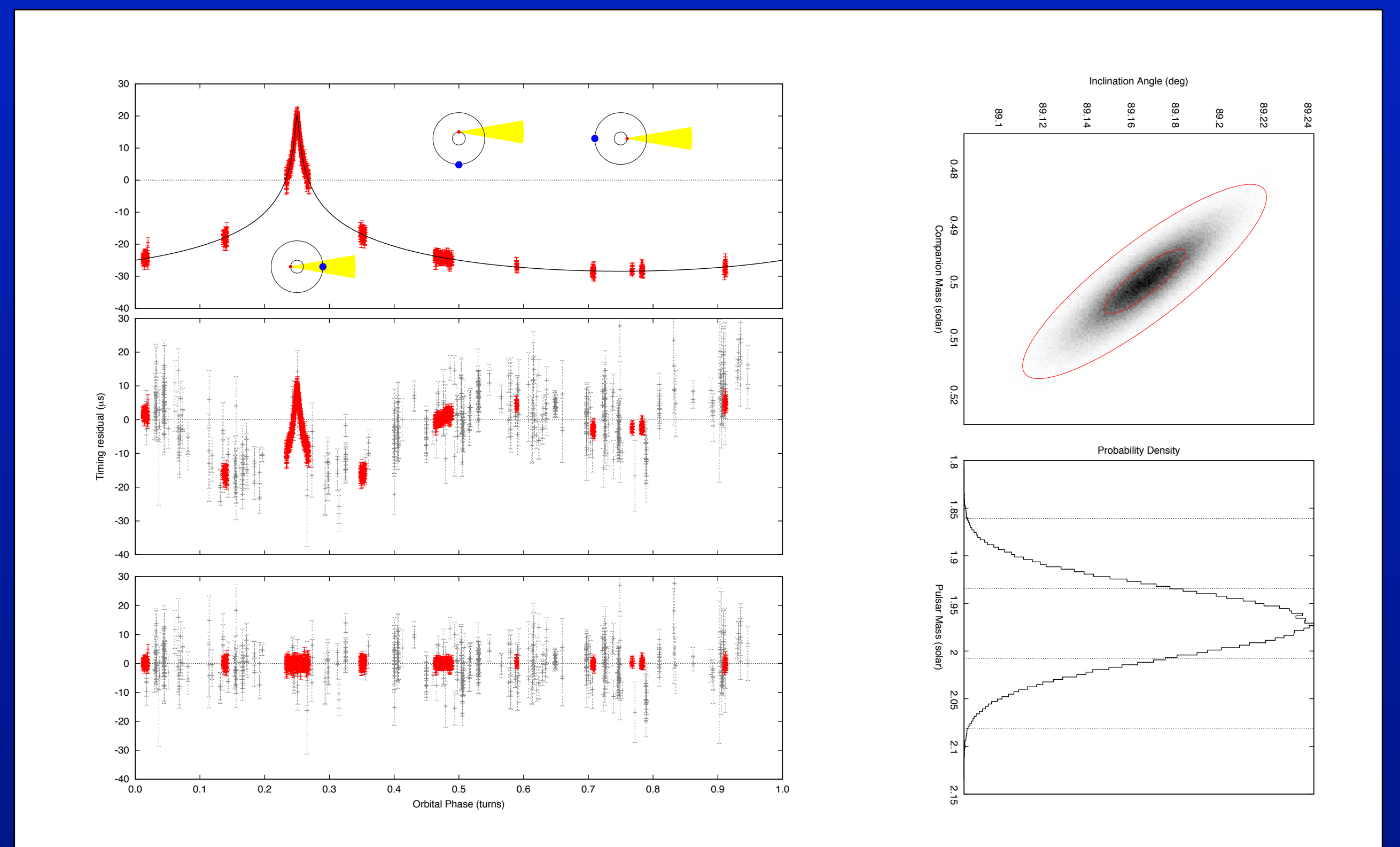
Towards observational gravitational wave astronomy

Precision Mass Measurements

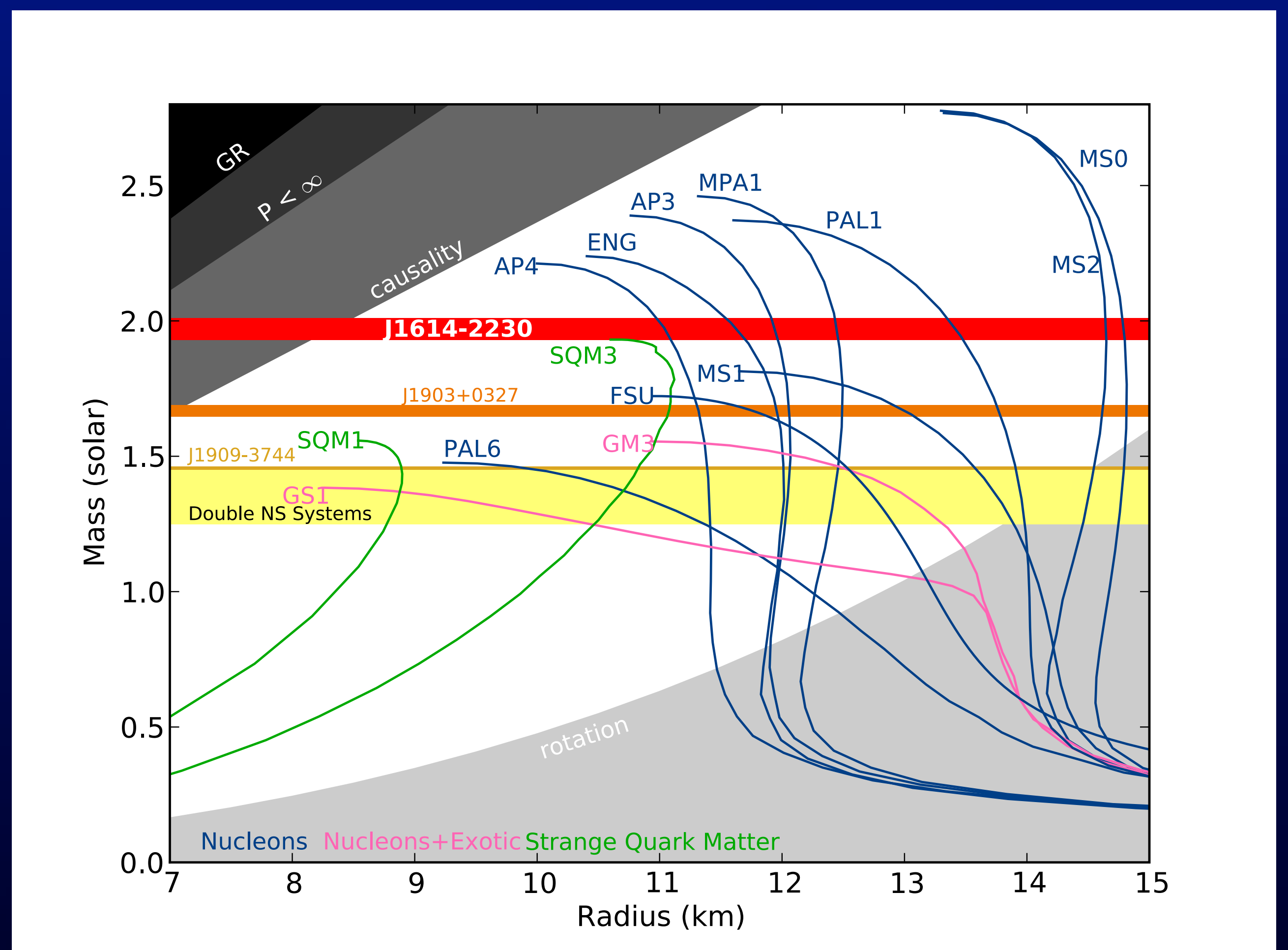
Constraining the EOS of neutron rich dense matter



"Placing limits on the stochastic gravitational-wave background using European Pulsar Timing Array data" van Haasteren et al. 2011, MNRAS, 414, 4 (including Hessels and Smits)

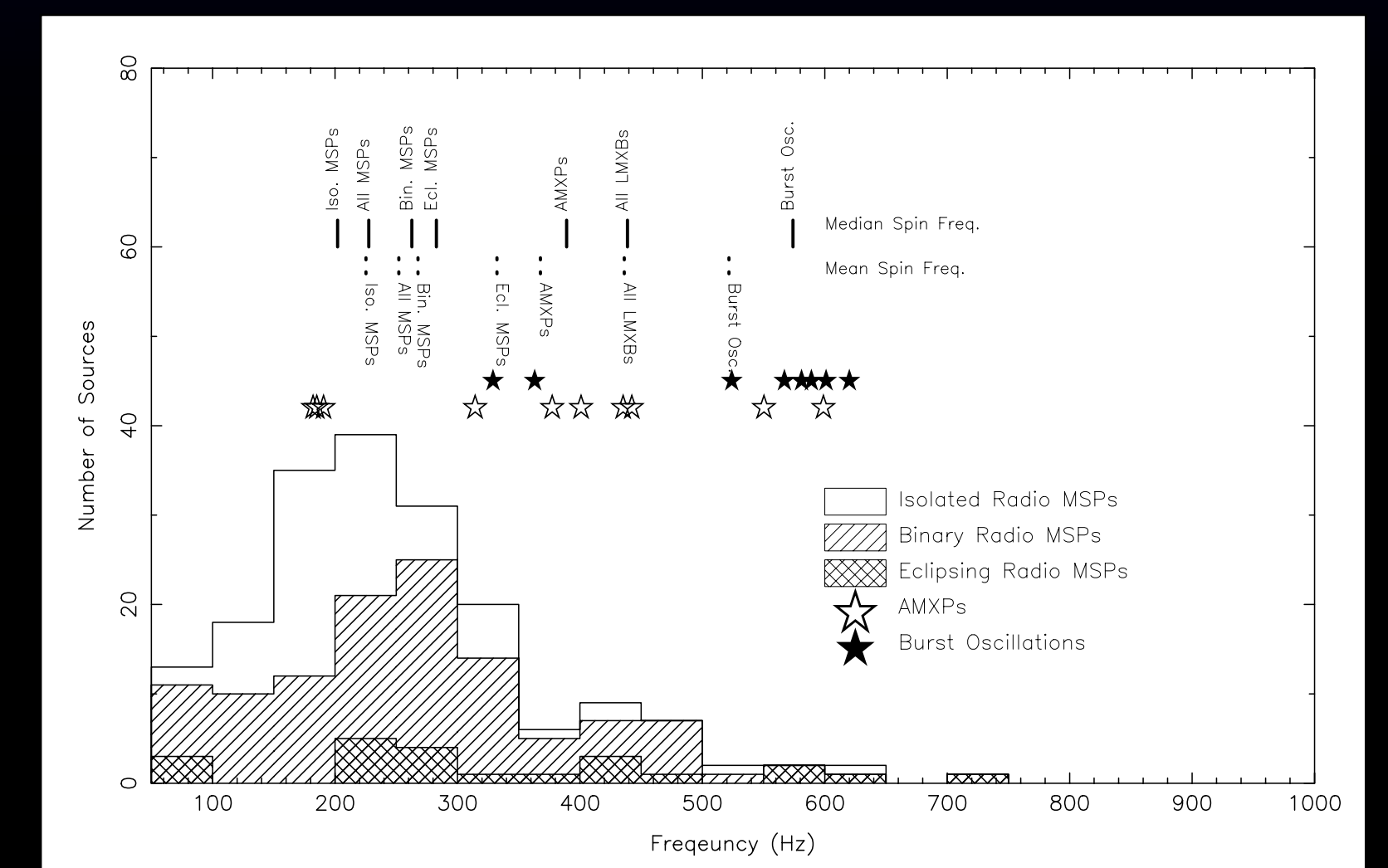
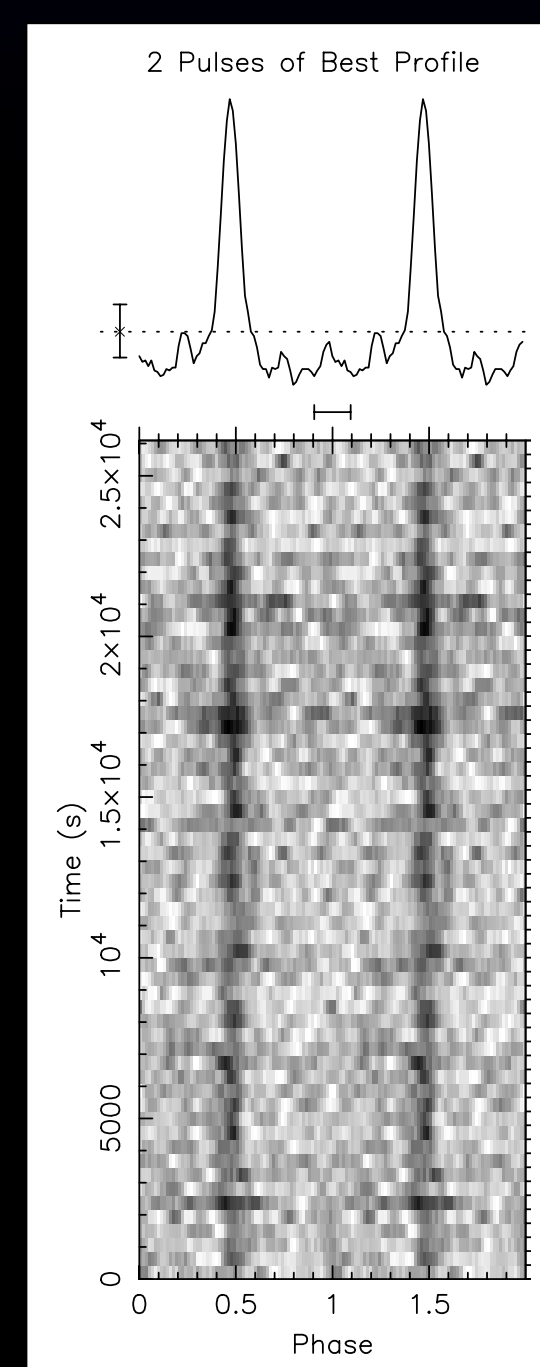
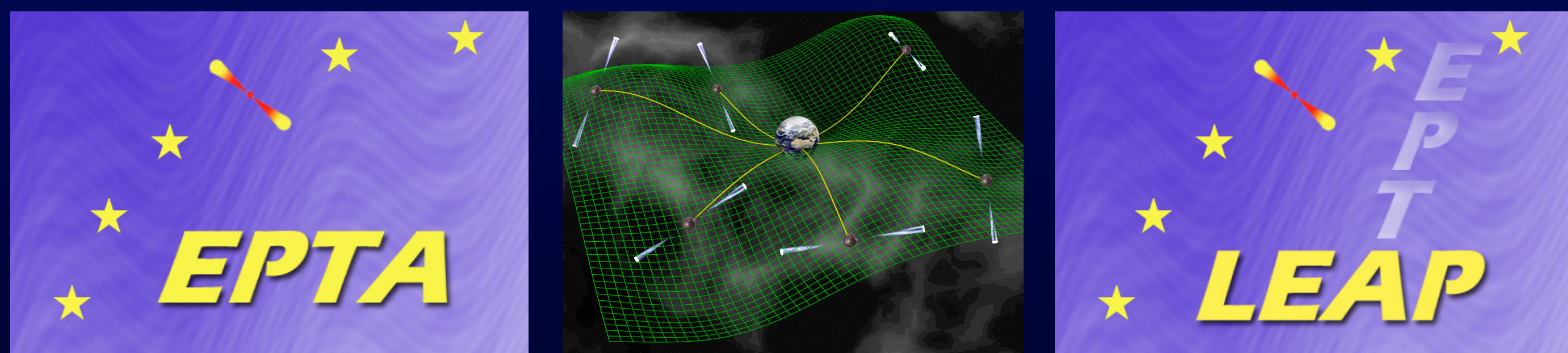


"A two-solar-mass neutron star measured using Shapiro delay" Demorest et al. 2010, Nature, 467, 1081 (including Hessels)
"On the nature and evolution of the unique binary pulsar J1903+0327" Freire et al. 2011, MNRAS, 412, 4 (including Hessels)



Constraints from Spin

How fast can a neutron star spin?



"A Radio Pulsar Spinning at 716Hz" Hessels et al. 2006, Science, 5769, 1901