



Contribution ID: 45

Type: Talk [Main Conference]

## Nuclear physics with observation of neutron stars: Where do we stand? Where are we going?

*Tuesday, 7 February 2017 14:30 (15 minutes)*

Observing the surface of neutron stars provides the crucial information about their radius that is necessary to understand their interior composition, and therefore to place constraints on the equation of state of matter at extreme densities. While a few independent methods permit measurements of the neutron star radius, the existence of potential systematic uncertainties have been pointed out for these methods. It is therefore necessary to pursue all these in parallel to permit inter-comparison their results. This talk will present a rapid overview of a few methods to measure the neutron star radius and their recent results. I will also discuss the various observational ways to address the potential systematic uncertainties that may affect the measurements.

**Primary author:** Dr GUILLOT, Sebastien (Pontificia Universidad Catolica de Chile)

**Presenter:** Dr GUILLOT, Sebastien (Pontificia Universidad Catolica de Chile)

**Session Classification:** Session 3

**Track Classification:** Contributed talk