### Service de Physique Nucléaire SÉMINAIRE

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#### Vendredi 23/06/2017, 11h00

### CEA Saclay, Orme des Merisiers Bat 703, p 135 salle visio-conféren

# Shell model states in the continuum: tetraneutron resonance

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Theoretical studies and experimental searches for a bound or resonant state in a system of four neutrons (tetraneutron) were started more than 50 years ago. The first experimental observation of the tetraneutron resonance was reported in 2016. I shall discuss the theoretical description of the low-energy tetraneutron resonance consistent with the experiment which however has a poor statistics and hence large error bars. This description is based on ab initio calculations within the no-core shell model extended to the description of four-body continuum within the democratic decay approximation.

Le cafe sera servi 10 minutes avant Contact : andrea.ferrero@cea.fr - Tel : +33 1 69 08 75 91 http://irfu.cea.fr/Sphn/Phocea/Vie\_des\_labos/Seminaires/index.php