

Service de Physique Nucléaire



Séminaire

le vendredi 6 mai 2011 à 11h

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

Ab-Initio Green's Function Theory in Mid-Mass Isotopes

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Ab-initio calculations—starting from the sole knowledge of a realistic nuclear force—aim at eventually achieving parameter-free predictions of nuclear properties. This poses strong requirements on quantum many-body theory, with the two most compelling challenges being the description of scattering processes and the quest for calculating fully open shell systems of medium or larger masses.

The talk will discuss advances we are pursuing along these lines using Green's function theory. I plan to describe the method, especially in relation to its usefulness to interpret experimental data, and will discuss some applications made in recent years (quenching of spectroscopic factors, proton-nucleus scattering, two-nucleon emission).

Le café sera servi 10 minutes avant

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