CEA - Saclay 91191 Gif-sur-yvette Cedex
Service de Physique de l'Etat Condensé
SÉMINAIRE
Jeudi 25 juin 2014 à 11h15
Orme des Merisiers SPEC, Salle Itzykson, Bât.774

Thermodynamics of strongly correlated gases

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The understanding of the properties of strongly correlated quantum systems is one of the most challenging open problems in modern physics, since it is relevant to fields as different as condensed matter, astrophysics or nuclear physics. Using laser cooling and trapping techniques, it is now possible to study the quantum many body problem on atomic vapors. In this talk, I will show that it is possible to engineer model experimental systems reproducing faithfully some of the most popular hamiltonians used in theoretical physics. I will illustrate this on the study of the thermodynamic properties of strongly correlated gases that can now be benchmarked accurately using advanced experimental and theoretical techniques.

A coffee break will be served at 11h00. The seminar will be given in English.