Université Paris-Saclay IJCLab (Laboratoire de Physique des 2 Infinis Irène Joliot-Curie) Bât. 100, F-91405 Orsay

Séminaire de Physique Nucléaire Théorique

Renormalization Group approaches to pairing in neutron matter

S. Ramanan

(Indian Institute of Technology Madras, India)

In this talk I will re-visit the issue of pairing in the higher partial waves in pure neutron matter. We use the free-space SRG interactions as input and we calculate the zero temperature gaps as a function of density. We use the dependence of the gap on the renormalization scale as a tool to estimate the size of the medium corrections. The pairing gap is very sensitive to the details of the approximation used. Hence, I focus next on the in-medium evolution of the renormalization group equation, the in-medium similarity renormalization group (IM-SRG). I discuss the set-up and summarize our progress.

> Mercredi 16 Mai 2018 11 :30 IJCLab, Bât. 100, Salle Bâtiment 100, Salle A015