



WORKSHOP
October 2-6, IPN Orsay
Bat. 100, room A015

Bridging nuclear ab-initio and energy-density-functional theories

Monday 10/02

- 9:30 M. Guidal (IPN Orsay, France)
Welcome
- 10:00 D. Lacroix (IPN Orsay, France)
Density Functional for cold atoms and neutron matter with no free parameters.
- 11:30 K. Bennaceur (IPN Lyon, France)
Nuclear structure with regularized EDF generators
- 14:30 D. Davesne (IPN Lyon, France)
Skyrme N2LO functionals: first results on finite nuclei
- 15:30 O. Benhar (Univ. Roma, Italy)
Nuclear Effective Interaction From Correlated Basis Functions

Tuesday 10/03

- 9:30 M. Grasso (IPN Orsay, France)
From dilute matter to the equilibrium point in the energy-density-functional theory
- 11:00 A. Rios (Univ. Surrey, England)
Pairing in infinite nuclear systems
- 14:00 J. Dobaczewski (York Univ., England)
Ab initio derivation of model EDFs
- 15:00 A. Gezerlis (Univ. Guelph, Canada)
Quantum Monte Carlo calculations of neutron-rich matter
- 16:00 Boulet (IPN Orsay, France)
Static and dynamical response of neutron systems

Wednesday 10/04

- 9:30 P. Papakonstantinou (RISP, South Korea)
A natural EDF Ansatz for homogeneous matter: The shortest path to finite nuclei
- 11:00 R. J. Furnstahl (Ohio State Univ., USA)
DFT and EFT: Recent developments and ideas
- 14:00 J. Carlson (LANL, USA)
Ab-initio theory and density functionals in cold atoms
- 15:00 D. Petrov (LPTMS, Orsay, France)
Quantum droplets of ultracold bosons

- 16:00 P. Magierski (Univ. Warsaw, Poland)
Properties of strongly correlated Fermi gas from Quantum Monte Carlo- constraints on Energy Density Functional

Thursday 10/05

- 9:30 M. Kortelainen (Univ. Jyväskylä, Finland)
UNEDF EDFs and their uncertainty propagation
- 11:00 I. Tews (INT, Seattle, USA)
Nuclear matter constraints from chiral effective field theory
- 14:00 T. Duguet (CEA Saclay, France)
Ab initio-driven nuclear energy density functional method
- 15:00 C.J. Yang (IPN Orsay, France)
Toward an EFT approach to nuclear system

Friday 10/06

- 9:30 G. Hupin (IPN Orsay, France) and N. Pillet (CEA/DAM/DIF, France)
MPMH to tailor nuclear effective interactions
- 11:00 N. Chamel (ULB, Belgium)
Nuclear energy density functionals for astrophysical applications
- 14:00 P. Arthuis (CEA Saclay, France)
Recent developments in Bogoliubov Many-Body Perturbation Theory
- 14:30 U. van Kolck (IPN Orsay, France)
Unitarity and Discrete Scale Invariance

More information at

<https://indico.in2p3.fr/event/14755/>

Organizers:

J. Bonnard (IPNO)
A. Gezerlis (Univ. Guelph)
M. Grasso (IPNO)
D. Lacroix (IPNO)
C.J. Yang (IPNO)

