



FUSTIPEN Topical Meeting

«Low-energy nuclear collective modes and excitations»

May 24-25, 2012, GANIL, Caen, France

Second circular

This meeting will review the present status of studies of the low-energy collective motion in complex nuclei. In spite of great advances of nuclear science there are still many unresolved and intriguing questions concerning collective excitations, such as:

- what happens in loosely bound and marginally stable nuclei?
- what is the origin of clustering?
- what is the physics of pygmy resonances?
- can we (and should we) go beyond the random phase approximation in the description of collective vibrations?
- what is the right way of calculating the moment of inertia and its evolution?
- why the deformed nuclei prefer to have prolate deformation?
- why random interactions reveal the properties of collective excitations?

And this list goes on and on.

We will discuss these issues in a topical two-day meeting, with an emphasis on possible links between experiment and theory, keeping the format informal.

The meeting is scheduled to start at 9:00 on Thursday, May 24 and to finish around 18:00 on Friday, May 25. The sessions will take place at the GANIL Guesthouse. There is no registration fee. The French-based physicists interested in the topic of the meeting can get the local support from the French FUSTIPEN grant.

Upon arrival at GANIL, you are requested first to contact the guardian at the entrance of GANIL and then proceed to the GANIL Guesthouse, for the registration. Personal laptops will be able to connect to the wireless network.

All the information to reach GANIL can be found at the address:

http://fustipen.ganil.fr/practical/Practical_info.pdf

If you have any question concerning your arrival and stay in Caen, or your participation in the meeting, please do not hesitate to contact us at fustipen@ganil.fr.

Program of the Topical Meeting
«Low-energy nuclear collective modes and excitations»

Thursday, May 24, 2012

9:00	Registration
9:25	Welcome
9:30 – 10:30	V.G. Zelevinsky (MSU East Lansing) Personal list of unsolved theoretical problems
10:30 – 11:00	Coffee break
11:00 – 12:00	P. Schuck (IPN Orsay) Reduction of pairing at overflow and drip configurations
12:00 – 13:00	E. Sapershteyn (Kurchatov Institute Moscow) Quadrupole excitations in spherical nuclei and pairing
13:00 – 14:00	Lunch
14:00 – 15:00	L.M. Robledo (Universidad Autónoma Madrid) A survey of octupole collectivity: energies and transition probabilities
15:00 – 16:00	M. Grasso (IPN Orsay) Low-lying dipole response in Ca isotopes with the second random-phase approximation
16:00 – 16:30	Coffee break
16:30 – 17:30	S. Péru (CEA/DAM/DIF Bruyères-le-Châtel) Low lying excitations in neon isotopes, N=16 isotones and ^{68}Ni within QRPA and Gogny force
17:30 – 18:30	V.Yu. Ponomarev (TU Darmstadt) Study of pygmy resonance within quasiparticle-phonon model

Friday, May 25, 2012

9:00 – 10:00	E. Clement (GANIL) Shape coexistence in medium mass nuclei: some examples of experimental and theoretical comparison
10:00 – 10:30	Coffee break
10:30 – 11:30	F. Nowacki (IPHC Strasbourg) Collective phenomena and shell structure far from stability
11:30 – 12:30	J. Toivanen (Charles University Prague) Solution of QRPA equations using iterative Arnoldi method
12:30 – 14:00	Lunch
14:00 – 15:00	S. Lenzi (INFN Padova) Rapid shape evolution at N=40: theory and experiment
15:00 – 16:00	V. Hellemans (ULB Bruxelles) Probing time-odd terms and finite-size instabilities in the Skyrme energy density functional
16:00 – 16:30	Coffee break
16:30 – 17:30	P. Cejnar (Charles University Prague) Regular and chaotic solutions of the Bohr model
17:30	End of the Meeting

To register for the meeting, please fill in the registration form

http://fustipen.ganil.fr/Conferences/2012/Collective2012/Registration_form

and send to fustipen@ganil.fr.

We are asking even those holding a GANIL badge to register so that an accurate count can be obtained for the coffee breaks.

We hope to see you soon at GANIL at the occasion of this topical meeting.

Denis Lacroix (GANIL)

Marek Ploszajczak (GANIL)

Vladimir G. Zelevinsky (Michigan State University)