



FUSTIPEN Topical Meeting

«Structure and reactions at the drip lines»

May 24-25, 2011, GANIL, Caen, France

Second circular

This two-day workshop addresses some of the main issues of structure and reaction studies at the drip lines posed by the interplay of many-body correlations and couplings to the environment of scattering and decay channels. Nuclear systems in the vicinity of drip lines are open quantum systems and a unified description of the structure and reaction aspects are crucial to understand their basic properties. To study the interface between clustering and continuum close to the particle emission threshold, the role of two- and three-body interactions, and how correlations are affected by strong isospin asymmetry close to the dripline, require novel tools for solving the nuclear many-body problem.

We will discuss these issues in a topical two-day meeting, keeping the format informal and leaving room for long discussions. Special attention will be on experimental signatures and their theoretical interpretation.

We would also like to engage a discussion on what issues should be tackled in the future, both theoretically and experimentally. Those participants who would like to contribute to the discussion are invited to contact us at fustipen@ganil.fr.

The meeting is scheduled to start at 9:00 on Tuesday, May 24 and to finish around 17:30 on Wednesday, May 25.

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

Program of the Topical Meeting (preliminary)

Tuesday, May 24, 2011

- 9:00 – 9:30 Registration
- 9:30 Welcome
- 9:35 – 10:35 Gaute Hagen (ORNL)
Towards a unified description of nuclear structure and reactions
with coupled-cluster theory.
- Coffee break
- 11:00 – 11:45 Gustav Jansen (University of Oslo)
Open-shell nuclei with coupled-cluster theory
- 11:45 – 12:30 Olivier Sorlin (GANIL)
Study of proton-neutron correlations in ^{26}F
- Lunch
- 14:00 – 15:00 Thomas Neff (GSI Darmstadt)
Nuclear structure and reaction studies using the FMD approach
- Coffee break
- 15:30 – 16:30 Nicolas Michel (University of Jyväskylä)
GSM description of nuclear structure and reactions
- 16:30 – 17:15 Karim Bennaceur (University of Lyon)
Halo phenomena in finite many-fermion systems
- 17:15 – 18:00 Jason Holt (ORNL)
Shell model calculations with 3N-forces towards the drip line

Wednesday, May 25, 2011

- 9:30 – 10:30 Haik Simon (GSI Darmstadt)
Experimental update on reactions at and beyond drip line
- Coffee break
- 11:00 – 12:00 Hans-Werner Hammer (University of Bonn)
Electric properties of ^{11}Be system in halo EFT
- 12:00 – 12:45 Lucas Platter (Chalmers University of Technology, Gothenburg)
Halo EFT
- Lunch
- 14:00 – 15:00 Carlo Barbieri (University of Surrey)
Toward an *ab initio* description of optical potentials and structure
for drip lines
- Coffee break
- 15:30 – 16:15 Nicolas Alamanos (CEA/IRFU/DIR Saclay)
Direct reactions of halo nuclei
- 16:15 – 17:00 Hervé Savajols (GANIL)
2n-halo transfer reaction on $p+^{11}\text{Li}$ and its optical model analysis
- 17:15 End of the Meeting

To register, please fill in the registration form:

http://fustipen.ganil.fr/Conferences/Drip/Registration_form

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

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.

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

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