



FUSTIPEN Topical Meeting

« Fission-fragments in low-energy fission: a gauge for macroscopic and microscopic influences »

October 21-22, 2015, GANIL, Caen, France

Second circular

Significant progress in measuring a wide range of fission properties, and correlations between them, has been brought about by new experimental techniques, in part based on the inverse kinematics, which has inspired to improved theoretical insights. Over a large number of fissioning nuclei, systematic, precise information on the proton and neutron fragment distributions and on even-odd proton-number staggering has shed light on the impact of nuclear properties in the formation of fission fragments.

The goal of this two-day workshop is to discuss some of the recent advances in experimental and theoretical achievements and to point the way to future studies. The themes of the workshop will focus on the fission fragment description at low and moderate excitation energy. Recent macroscopic-microscopic models and Time-Dependent Microscopic models for the description of the evolution of the nucleus during its deformation will be discussed.

We invite those participants, who wish contribute to discussions to contact us at fustipen@ganil.fr. In line with previous workshops of this kind, the format of the workshop will be kept informal with ample time for discussion.

The meeting is scheduled to start at 9:00 on Wednesday, October 21st and to finish around 18:00 on Thursday, October 22nd. The session will take place in room 105 of the GANIL main building.

Upon arrival at GANIL, you are requested first to contact the guardian at the entrance of GANIL and then proceed to the GANIL main building, room 105, 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

Preliminary Program of the Topical Meeting

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Wednesday, October 21, 2015

- 9:00 Registration
- 9:15 Welcome
- Chair: Fanny Farget (GANIL)*
- 9:30 – 10:00 **Peter Moller** (LANL)
*Recent progress in Fission-Fragment Yield Modeling:
Odd-Even staggering and yields versus Z and N*
- 10:15 – 10:45 Coffee break
- 10:45 – 11:15 **Laurent Audouin** (IPN Orsay)
Overview on the SOFIA experiment
- 11:30 – 12:00 **Anna Zdeb** (UMCS, Lublin)
Asymmetry of fission fragments
- 12:15 – 14:00 Lunch
- Chair: Piet Van Isacker (GANIL)*
- 14:00 – 14:30 **Piotr Magierski** (Warsaw University of Technology)
Nuclear fission and fusion reactions within superfluid TDDFT.
- 14:45 – 15:15 **David Regnier** (CEA DAM)
*Microscopic description of fission dynamics: finite element method
resolution of the TDGCM+GOA equation*
- 15:30 – 16:00 Coffee break
- 16:00 – 16:30 **Daniel Ward** (Lund)
*Effect of realistic level densities on fission-fragment mass
distributions.*
- 16:45 – 18:00 **Discussion**
*Conveners: Piotr Magierski, Warsaw University of Technology
Philippe Quentin, Centre d'Études Nucléaires de
Bordeaux-Gradignan
Dieter Ackermann, GANIL*
- 20:00 – 23:00 Workshop Dinner

Thursday, October 22, 2015

Chair: Christelle Schmitt (GANIL)

- 9:30 – 10:00 **Jorgen Randrup** (LBNL)
TBA
- 10:15 – 10:45 **Coffee break**
- 10:45 – 11:15 **Fanny Farget** (GANIL)
From fission yields to scission properties
- 11:30 – 12:00 **Hong Liang Lu** (GANIL)
Formation of Super-Heavy Elements - Role of the fission barrier in the uncertainty analysis
- 12:15 – 14:00 **Lunch**
- Chair: Dieter Ackermann (GANIL)*
- 14:00 – 14:30 **Kasia Mazurek** (Institute of Nuclear Physics, Krakow)
Recent results of Langevin approach to fission at high temperature
- 14:45 – 15:15 **Diego Ramos** (USC, Spain)
Dependence of fission-fragment properties on excitation energy for n-rich actinides
- 15:30 – 16:00 **Coffee break**
- 16:00 – 16:30 **Manuel Caamaño** (USC, Spain)
Experimental study of deformation on fission fragments
- 16:45 – 18:00 **Discussion session**
*Conveners: Peter Moller, Los Alamos National Laboratory
Jorgen Randrup, Lawrence Barkley Laboratory
Manuel Caamaño, USC*
- 18:00 **End of the Meeting**

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.

Fanny Farget (GANIL)
Peter Moller (LANL)