FUSTIPEN Topical Meeting

«Dynamical cluster formation and correlations in heavy-ion collisions, within transport models and in experiments»

May 17-19, 2016, GANIL, Caen, France

Second circular

Cluster formation is of interest not only in the areas of heavy-ion collisions and nuclear structure, but also in nuclear astrophysics (such as in the context of core-collapse supernovae and neutrino emission and absorption processes). This FUSTIPEN Topical Meeting will allow a wide discussion of theoretical transport models aimed at studying observables measured in nuclear reactions at intermediate energies. Special attention will be dedicated to the particle-particle correlations as a unique tool to learn on the space-time extent of emitting sources, nature of nuclear multi-nucleon decays and on resonant states of light nuclei. Connections to nuclear astrophysics and, in particular, to dynamics of supernova explosions and neutron star observables, will also be discussed.

The meeting is scheduled to start at 9:15 on Tuesday, May 17 and to finish around 12:15 on Thursday, May 19. 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 room 105 for the registration. Personal laptops will be able to connect to the wireless network.
The information to reach GANIL can be obtained at the address:
http://fustipen.ganil.fr/conferences/practical-information-to-reach-ganil/view

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.

Pawel Danielewicz (Michigan State University)
Abdelouahad Chbihi (GANIL)

Program of the Topical Meeting

«Dynamical cluster formation and correlations in heavy--ion collisions, within transport models and in experiments»

Tuesday, May 17, 2016

9:15	Registration
9:30	Welcome
	Chairman: Abdelouahad Chbihi, GANIL
9:35 – 10:20	Hermann Wolter (University of Munich) Fragment and cluster formation in heavy ion collisions
10:20 – 10:50	Coffee break
10:50 – 11:35	Elias Khan (IPN Orsay) Cluster structure in stable and unstable nuclei
11:35 – 12:05	Paola Marini (CENBG Bordeaux) Searching for signals of Bose condensation in the decay of hot nuclear systems
12:05 – 12:50	Anthea Fantina (GANIL) Composition and clusters in the neutron-star crust
12:50 – 14:30	Lunch
	Chairman: Hermann Wolter, University of Munich
14:30 – 15:15	Pawel Danielewicz (Michigan State University) Cluster production in Boltzmann Equation Model - past and future
15:15 – 16:00	Eric Bonnet (GANIL) Cluster production in vaporization events
16:00 – 16:30	Coffee break
16:30 – 17:15	Luca Morelli (INFN Bologna) Clustering effects in reactions with light even-even N=Z nuclei: From the Hoyle state to cluster emission in ^{24}Mg
17:15 – 18:30	General discussion

Wednesday, May 18, 2016

Chairman: Pawel Danielewicz, Michigan State University

9:30 – 10:15 Joseph Natowitz (Texas A&M University)
Low density matter

10:15 – 11:00 Paolo Napolitani (IPN Orsay)
Mean-field instabilities and cluster formation in nuclear reactions

11:00 – 11:30 Coffee break

11:30– 12:00 Sandrine Courtin (IPHC Strasbourg)
Probing cluster resonances via heavy-ion fusion reactions at sub-barrier energies in the $^{12}C+^{12}C$ and $^{12}C+^{16}O$ systems

12:00 – 14:00 Lunch

Chairman : Giuseppe Verde, IPN Orsay & INFN Catania

14:00– 14:45 Sylvie Hudan (Indiana University)
Does the α cluster structure in light nuclei persist through the fusion process?

14:45 – 15:30 Dominique Durand (LPC Caen)
A study of central collisions at intermediate energies with the ELIE event generator

15:30– 16:00 Laura Francalanza (INFN – Sezione di Napoli)
In medium fragment breakup of projectile in $^{36}Ar+^{58}Ni$ central collisions

16:00 – 16:30 Coffee break

16:30– 17:00 Lucia Quattrochi (INFN & Università di Catania)
Study of two and multi particles correlations in $^{12}C+^{24}Mg$ collisions at 35 AMeV

17:00– 18:00 General discussion

20:00 Conference dinner

Thursday, May 19, 2016

Chairwoman: Sylvie Hudan, Indiana University

9:00 – 9:45 Giuseppe Verde (IPN Orsay & INFN Catania)
Correlation and clustering analyses in heavy-ion collision data

9:45 – 10:30 Rémi Bougault (LPC Caen)
Light cluster production in Xe+Sn 32 A.MeV

10:30 – 11:00 Coffee break

11:00 – 11:30 Daniela Fabris (INFN Sezione di Padova)
Pre-equilibrium particles emission to study clustering in nuclei

11:30– 12:15 General discussion

12:15 – 14:00 Lunch

End of the Workshop