

# Nuclear pair correlations probed via proton-induced transfer and knock-out reactions

Workshop of the *Espace de Structure Nucléaire Théorique*

Talks : 6-8<sup>th</sup> February, 2013

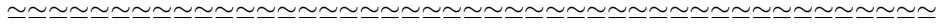
CEA, IRFU, SPhN, Orme des Merisiers, blg. 703, rooms 125-135, F-91191 Gif-sur-Yvette Cedex

+      Web site: <http://esnt.cea.fr/>    Ateliers 2013 >> Février      +

During this workshop, we plan to discuss the recent progress and remaining issues with existing reaction theory frameworks for knock-out and pair transfer reactions on proton targets.

## PROGRAM *Last update : 6<sup>th</sup> Feb.*

Wednesday 6 <sup>th</sup> Feb	Thursday 7 <sup>th</sup>	Fri. 8 <sup>th</sup>
room 135	room 125	room 125
09h00 ( <i>day plans</i> )	09h00 ( <i>day plans</i> )	09h00 ( <i>day plans</i> )
09h30 V. Lapoux	09h30 F. Flavigny	09h30 A. Moro
10h10 A. Corsi	09h50 T. Duguet	10h20 <b>Break</b>
10h50 <b>Break</b>	10h50 <b>Break</b>	10h40 K Ogata (II)
11h10 N. Keeley	11h10 A. Signoracci	11h20 G. Potel (II)
11h50 <i>CRC/DWBA frameworks</i>	11h50 N. Pillet	
12h15 <b>Lunch</b>	12h30 <b>Lunch</b>	12h00 <b>Lunch</b>
14h00 G. Potel (I)	14h00 M. Dupuis	13h30 <i>discussions</i>
14h40 D. Lacroix	14h40 J. Le Bloas	<i>pair transfer</i>
15h20 M. Grasso	15h20 K Ogata (I)	and (p,t) reactions
16h00 <b>Break</b>	16h10 <b>Break</b>	16h00 <b>Break</b>
16h20 F. Barranco	16h40 T. Noro	16h15 <i>Outlook :</i>
17h00 E. Vigezzi	17h30	<i>pair transfer,</i>
17h40 S. Péru	18h00 <i>Discussions</i>	<i>(p,t) and (p,pN) reactions</i>
18h20 <i>Discussions</i>	<i>DWIA frameworks</i>	<i>Workshop outputs</i>
19h30 <b>End</b>	19h30 <b>End</b>	18h00 <b>End</b>



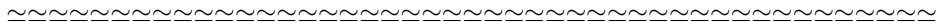
## LIST OF TALKS

*Talks introducing the workshop (Experimental overview, needs and questions) :*

- Anna-Maria Corsi, CEA, IRFU, SPhN, "*Experimental studies of shell effects via (p,2p) and (p,pn) reactions*"
- Valérie Lapoux, CEA, IRFU, SPhN, "*Nuclear structure of exotic nuclei probed via direct reactions on proton target*"

*Talks about microscopic form factors, structure inputs and reaction frameworks :*

- Nicholas Keeley (*Nicholas.Keeley@fuw.edu.pl*), National Centre for Nuclear Research, Warsaw, "*(p,t) transfer reactions studied in Coupled reaction channel framework*"
- Grégory Potel (*gregory.potel@cea.fr*), CEA, IRFU, SPhN, I. "*Probing pairing correlations with 2-neutron transfer*"
- Denis Lacroix (*lacroix@ganil.fr*), GANIL, "*Effect of collective and non-collective pairing excitations in transfer reactions*"
- Marcella Grasso (*grasso@ipno.in2p3.fr*), IPN-Orsay, "*Low-energy excitations and pair transfer of exotic nuclei*"
- Francesco Barranco (*barranco@us.es*), Univ. de Sevilla, "*Interplay of collective and single particle modes in the structure of exotic nuclei*"
- Enrico Vigezzi (*enrico.vigezzi@mi.infn.it*), INFN-Milano, "*Induced interaction and pairing in nuclei*"
- Sophie Péru (*sophie.peru-desenfants@cea.fr*), CEA, DAM, DIF, "*Excitations and QRPA calculations with the Gogny force*"
- Freddy Flavigny (*freddy.flavigny@be*) (SPhN), IKS Leuven, "*Correlations and spectroscopic factors*"
- Angelo Signoracci (*angelo.signoracci@cea.fr*) , CEA, IRFU, SPhN, "*Correlations and spectroscopic factors*"
- Thomas Duguet (*thomas.duguet@cea.fr*), CEA, IRFU, SPhN, "*How shall we talk about the single-nucleon shell structure ?*"
- Nathalie Pillet (*nathalie.pillet@cea.fr*), CEA, DAM, DIF, "*Nuclear form factors with multi-particle multi-hole configurations*"
- Marc Dupuis (*marc.dupuis@cea.fr*) CEA, DAM, DIF, "*G-matrix microscopic optical model potential calculations and structure inputs*"
- Julien Le Bloas (*julien.lebloas@cea.fr*), CEA, DAM, DIF, "*Description of light nuclei ( $8 < Z < 20$ ,  $8 < N < 20$ ) with the mp-mh Gogny energy density functional*"
- Kazuyuki Ogata (*kazuyuki@rcnp.osaka-u.ac.jp*), RCNP Osaka, I. "*CDCC methods*"
- Tetsuo Noro (*noro@nucl.phys.kyushu-u.ac.jp*), Kyushu University, "*Single particle properties and in-medium NN-interaction properties investigated via (p,2p) reactions*"
- Grégory Potel II. "*Nuclear structure via proton-induced knock-out - development of a multi-step finite-range DWIA code*"
- Antonio Moro (*moro@us.es*), Facultad de Fisica, Univ. de Sevilla, "*Core excitation in transfer and break-up reactions*"
- Kazuyuki Ogata RCNP Osaka, II. "*Status of breakup reaction theory*".



### Contact at CEA-Saclay, SPhN

*If you are interested in attending the workshop, please send an e-mail to the organizers :*

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