



## FUSTIPEN Topical Meeting

on

« Neutron-proton pair correlations in  $N \sim Z$  nuclei »

February 3, 2011, GANIL, Caen, France

Besides  $T=1$  pairing correlations between identical nucleons, leading to a BCS-like behaviour of nuclei, one may also expect specific correlation effects due to the  $T=0$  part of the nuclear interaction. One question, which is still under debate, is whether any observable can be measured in nuclei close to the  $N=Z$  line, which indicates the presence of (or remnants of) a  $T=0$  pairing condensate. Alternatively, as was recently suggested, one may look for the manifestation of aligned neutron-proton pairs in  $N \sim Z$  nuclei.

We will discuss these questions in a topical one-day meeting, with an emphasis on possible links between experiment and theory, keeping the format informal. The meeting is scheduled to start at 9:30 and to finish around 17:00 on Thursday February 3. The morning session will take place in room 105 of the GANIL main building and the afternoon session in the "Maison d'Hôtes" of GANIL.

The program of the meeting is as follows:

- |               |  |
|---------------|--|
| 9:30          | Welcome  |
| 9:30 – 10:15  | George Bertsch (University of Washington)<br>Competition between spin-singlet and spin-triplet pairing       |
| 10:15 – 10:50 | Didier Beaumel (IPN Orsay)<br>Future studies of neutron-proton pairing by deuteron transfer                  |
| Coffee break  |  |
| 11:20 – 12:05 | Peter Schuck (IPN Orsay)<br>Weakening of pairing towards the drip line                                       |
| 12:05 – 12:50 | Gilles de France (GANIL)<br>Experimental signature for $T=0$ pairing and isospin mixing in $N \sim Z$ nuclei |

## Lunch

- 14:00 – 14:45 Roberto Liotta (Royal Institute of Technology, Stockholm)  
Isoscalar spin alignment in nuclei
- 14:45 – 15:30 Piet Van Isacker (GANIL)  
Aligned neutron-proton pairs in N=Z nuclei
- 15:30 – 15:55 Chong Qi (Royal Institute of Technology, Stockholm)  
Spin-aligned neutron-proton pair mode and new collectivity in atomic nuclei
- 15:55 – 16:20 Julien Le Bloas (CENBG, Bordeaux)  
Influence of the T=0 pairing on some properties of the ground and low-lying states within the HTDA approach
- 16:20 – Coffee + Discussion

All information can be found in the web page

<http://fustipen.ganil.fr/Conferences/2011/pairing>

To register, please fill in the registration form.

[http://fustipen.ganil.fr/Conferences/2011/Registration\\_form](http://fustipen.ganil.fr/Conferences/2011/Registration_form)

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

There is no registration fee. A French FUSTIPEN grant might provide local support for French-based physicists interested in the topic of the meeting. The information to reach GANIL can be found at the address:

<http://pro.ganil-spiral2.eu/users-guide/users-office/how-to-reach-ganil>

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

Denis Lacroix (GANIL)

Piet Van Isacker (GANIL)