



Physics opportunities with the SPIRAL 1 upgrade

Dear colleague,

This is the first circular for the workshop “Physics opportunities with the SPIRAL 1 upgrade”, which aims at discussing the physics cases that can be addressed with the new beams from the SPIRAL 1 upgrade. It will be held at GANIL in the “Maison d’hôtes” from 8th to 10th of February, 2016, immediately before the AGATA workshop.

The registration to the workshop and the submission of abstracts can be done using the indico web site **until January 18th, 2016** : <https://indico.in2p3.fr/event/12296/>.

Please note that the LoIs for AGATA making use of the SPIRAL 1 beams will be presented in a dedicated session making the link to the AGATA workshop. AGATA LoIs have to be sent to Silvia Lenzi (silvia.lenzi@pd.infn.it) and Emmanuel Clément (emmanuel.clement@ganil.fr) before 18th of January. See <https://indico.in2p3.fr/event/12274/> for registration to the AGATA workshop.

If you want to present an idea of experiment **without AGATA** please send a short abstract to the indico web site.

Scientific program

As the technical developments of the SPIRAL 1 upgrade are now making rapid progresses, we would like to discuss the physics cases of interest for the startup of the facility, which is scheduled beginning of 2017, and immediately after. A number of experiments have already been discussed at different meetings (LoIs in 2010 evaluated by the PAC, in 2013 for AGATA, and ideas of experiments at the DESIR workshop in 2014) and would have to be re-examined and possibly updated in the light of the upcoming commissioning.

New ideas are of course encouraged, including experiments at longer term (2018 -...) using for example new targets or fusion evaporation reactions, at DESIR or elsewhere. The ISOL beam R&D beyond the startup version of the SPIRAL 1 upgrade has already been initiated. Such R&D is requiring input for defining guidelines and priorities in the upcoming years.

In order to prepare the workshop, **an updated list of radioactive ion beam intensities can be found on the indico web site.**

The workshop will be organized in 2 days, with a tentative scientific program as follows:

Monday afternoon:

- technical presentations showing the status of the upgrade, expected beam intensities, and future technical opportunities including new targets and fusion-evaporation reactions

Tuesday Morning

- Experiments with non – accelerated beams at LIRAT and DESIR

Tuesday Afternoon

- Experiments with accelerated beams: nuclear astrophysics, reactions and nuclear structure

Wednesday morning

- Experiments with accelerated beams at AGATA (making the link with the AGATA workshop)

Looking forward to seeing you in GANIL,

Pierre Delahaye, Mickaël Dubois, and the SPIRAL 1 upgrade team