

The following topics have been discussed during this workshop:

1. Status of the current physics program at IGISOL, ISOLDE, ALTO and SPIRAL1
2. Status of the current and future French facilities (S3, DESIR and ALTO)
3. Status of the current and future French facilities: production
4. Status of the current Instruments & Detectors: Ion traps
5. Status of the current Instruments & Detectors: Laser spectroscopy devices
6. Status of the current Instruments & Detectors: Decay spectroscopy set-ups
7. Future projects
8. Outcome of the WORKSHOP

The detailed program and all the presentations are available here: <https://indico.ijclab.in2p3.fr/event/6886/>

The workshop has been carried out for three consecutive days, from Wednesday 17th to Friday 19th of March 2021. In total 85 members of the collaboration have subscribed to the indico website with an average participation of 70 people per session.

The first day focused on presenting recent results carried out by the community, the presentations were performed mainly by PhD students (15) and about 10 articles are submitted or in preparation. Thursday was dedicated to the current situation of the different projects where the ISOL-France community is leading. The presentations were performed in their majority by students or postdocs as well. Finally, the last day was divided in two sections, the morning session focused on future projects and diverse information to the community (e.g. mission Spiro) and the afternoon was dedicated on general discussions.

The inputs for the general discussion were collected during the discussion slot at the end of each session of Thursday and Friday. In the following, the main discussed points are presented.

Beam time is essential

The ISOL-France community expressed their strong need into performing experiments, in both French and European facilities (i.e. ISOLDE, IGISOL...etc). Even if a large amount of the physics of interest for the community will be achievable at SPIRAL2 with S3-LEB and DESIR, the community wishes to keep performing experiments in other laboratories in order to maintain the physics output while waiting for the accomplishment of the foreseen installations and for attracting other communities to the French facilities under construction. It is worth mentioning the need of collaboration with other laboratories to increase the transfer of the know-how by taking advantage of the expertise developed in those installations.

ALTO and GANIL (SPIRAL2 S3-LEB DESIR)

No consensus within the community was achieved to the question whether ALTO should be attached to GANIL as an extra experimental room or if ALTO should be an independent national facility. The only concern expressed is that ALTO provides

beam time to the ISOL-France community. Within this respect, until neutron-rich nuclei are present at DESIR and/or the physics program at ALTO with neutron rich RIB is accomplished, the experimental set-ups developed for DESIR (i.e. MLLTRAP, LINO...) will stay at ALTO. The community highlights the need to continue developing a strong physics program for ALTO.

The community supports the solution presented within the “mission Spiro” of a Rhodotron source for fission fragments at DESIR, it’s in agreement with the needs of the community. The ISOL-France members strongly refused a common PAC for both facilities; it proposes alternative solutions as a member of ALTO in the GANIL PAC and vice-versa, synchronization of PACS, change of GCM for GACM... etc.

Common detectors

The community expressed their interest in a pool of neutron detectors available for the collaboration. The bureau ISOL-France wonders if this initiative should not include other types of detectors and/or equipment, as well.

Internal research/engineer mobility

The ISOL-France community wishes to have more mobility of the permanent researchers/engineers between partner laboratories.

That implies a clear support from IN2P3 concerning the travel costs.

A document with the details concerning a pool of PhD students and post-docs will be submitted to the community by the ISOL-France bureau for further and concrete discussions.

Future projects coordination

The ISOL-France community wishes to organise the future projects to be requested to funding agencies (ANR, Region, etc..). Those projects will be submitted beforehand to the full community for its validation. The retained projects will profit from the ISOL-France label reflecting the support of the community.

The members of the community wish also to keep their freedom when presenting their projects to funding agencies. In that case, such a project will not benefit from the ISOL-France label.

This additional meeting of the community will allow a common strategy of the new projects, and to inform all the community about new ideas.

Open questions

The community wonders who is going to take the final decision concerning the actions to carry out from the mission Spiro

During the workshop, the community highlighted that the scientific strategy for the project Tulip was not discussed.

Concerning the collinear ionization laser spectroscopy at DESIR, the community noticed that the development of the device is at the moment in stand-by. The bureau ISOL-France proposes to organize a discussion within the community about the physics involved and set-up development.

Should ISOL-France try to be organised as the high energy physics collaborations?

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