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The Neutrons For Science Facility of GANIL/SPIRAL2

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The neutrons for science facility (NFS) is the first operational experimental area of the new GANIL/SPIRAL2 facility. It is composed of two main areas: a converter room where neutrons are produced and activation measurements are performed, and a 28-meters long time-of-flight area where high neutron-energy resolution is achieved by the time-of-flight technique.

NFS benefits from the intense proton and deuteron beams delivered by the LINAC of SPIRAL2 in order to produce neutron beams in the range of 1-40 MeV through reactions in Be and Li converters. The NFS commissioning started in the fall of 2020 were proton-induced reaction cross-sections as well as neutron beam characteristics were measured. The second phase of the commissioning, using deuteron beams, is scheduled for this year as well as the first accepted experiments.

The first results, showing the capability of the facility, will be presented and compared with previous data. The future physics cases and the first experiments to run at NFS will be presented as well.

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