Contribution ID: **14** Type: **Oral presentation**

Fast timing opportunities at ILL Grenoble

Wednesday 12 March 2025 15:35 (30 minutes)

ILL operates two user instruments that enable fast timing measurements with nuclides that are either neutron-rich or close to stability.
The LOHENGRIN fission fragment recoil separator provides mass- and energy separated beams of fission products. In particular short-lived (microsecond) isomers or beams of refractory elements that are less suited for ISOL facilities are of interest for decay spectroscopy at LOHENGRIN. Combined setups enable either microsecond-isomer-tagged or beta-gamma-gamma fast timing experiments.
Complementary to LOHENGRIN, the FIPPS instrument uses an intense pencil beam of thermal neutrons incident on stable or radioactive targets. Gamma rays emitted after neutron capture or neutron-induced fission respectively are detected by an array of 8 HPGe clover detectors with anti-Compton shield. This basic array is complemented with additional Ge detectors and/or LaBr3 detectors for fast timing.
A review of typical past and possible future fast timing experiments will be given.

Author: KOESTER, Ulli (Institut Laue-Langevin (FR))

Presenter: KOESTER, Ulli (Institut Laue-Langevin (FR))

Session Classification: Day 1

Track Classification: Facilities and arrays: Large scintillator and hybrid arrays