

## Talk 6: Capabilities of the n\_TOF spallation facility at CERN for electronics testing

*Wednesday, 12 June 2024 10:43 (12 minutes)*

### Abstract:

The capabilities of neutron time of flight (n\_TOF) spallation facility at CERN was investigated for electronics testing, as the demand of testing in such facilities is increasing and their availability in the worlds is limited. The neutron fields in a recently consolidated irradiation station (NEAR) are studied through Monte Carlo simulations, well-characterized static-random-access-memories (SRAMs) and radio-photo-luminescence (RPL) dosimeters. The neutron spectra at NEAR can reach up to 830 MeV and are compared to those of the most well-known spallation sources and typical environments of interest, for accelerator and atmospheric applications, showing the potential of the facility for electronics irradiation. In addition, an experimental area, typically employed for nuclear cross section measurements, is also investigated, which provides a neutron spectrum up to 12 GeV.

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**Session Classification:** Session 1: Neutron facilities