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Status of NEPIR, the NEutron and Proton Irradiation facility at SPES cyclotron

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At INFN-Legnaro (LNL) there is an ongoing effort to create a suite of neutron sources based on two high current proton accelerators: a 5 MeV (30 mA) linac developed at LNL and the new 35-70 MeV (0.75 mA) cyclotron of SPES. These will produce cold, thermal, epithermal, and fast neutrons for a variety of applied and basic research programs (material characterization, imaging, neutron detectors, nuclear astrophysics, neutron data for MC development, boron neutron capture therapy, radiation damage in electronics...).
In particular, the SPES cyclotron will feed NEPIR, an irradiation facility that will deliver both quasi mono-energetic neutron and direct proton beams in the 20-70 MeV energy range for multi-disciplinary applications. A complementary continuous energy atmospheric-like neutron beam for studying neutron-induced Single Event Effects in electronics will also be available.
In this contribution, we report on the status of the design and construction plans of NEPIR in view of recent funding.

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