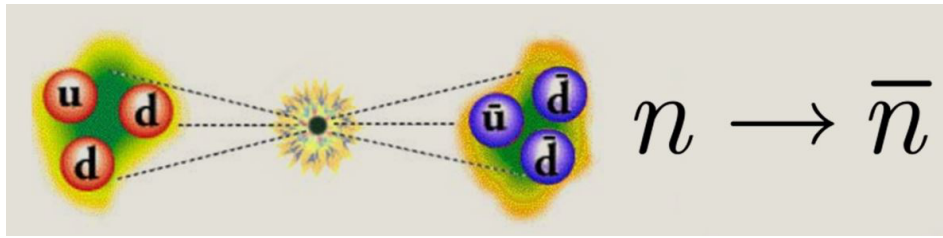


Theoretical Innovations for Future Experiments Regarding Baryon Number Violation, Part 1



Contribution ID: 16

Type: **Oral Presentation**

Neutrons at ORNL and ESS: A Synergistic Program

Wednesday, 5 August 2020 13:00 (30 minutes)

Oak Ridge National Laboratory has some of the world's most advanced neutron sources, the High Flux Isotope Reactor (HFIR) which is a continuous source of neutrons from nuclear fission, and the Spallation Neutron Source, a pulsed source created by an accelerated proton beam hitting a mercury target. Not only are both good sources for neutrons, they are also excellent neutrino sources with exceptional characteristics. An ambitious and growing fundamental neutron and neutrino science program is in operation at both the SNS and HFIR. Both facilities will undergo major upgrades. A Second Target Station will be built at the SNS, driven by a 2.8MW proton beam, and HFIR will be upgraded with a new pressure vessel and reflector. This provides a unique and timely opportunity to explore the opportunities these upgraded facilities offer for a compelling future fundamental physics program. The Physics Division invites the community to develop a strong synergistic program.

Contribution Title

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