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High Intensity Neutrino Oscillation Experiments and Exotic Particles GEOFFREY MILLS, Los Alamos National Laboratory — Modern accelerator based neutrino experiments, those currently operating and those being proposed, use very intense beams to produce neutrinos. Those beams greatly surpass previous experiments in the number of protons on target and offer new opportunities for exotic particle searches. This paper discusses the discovery potential of current and future neutrino oscillation beams and experiments for weakly interacting neutral particles such as (pseudo)Goldstone bosons and gauge bosons which result from the spontaneous breakdown of grand unified theories particle physics.

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