

Abstract Submitted
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The HALO / HALO-2 Supernova Neutrino Detectors¹ STANLEY YEN, TRIUMF, HALO COLLABORATION — The Helium and Lead Observatory (HALO) is a dedicated supernova neutrino detector in SNOLAB, which is built from 79 tons of surplus lead and the helium-3 neutron detectors from the SNO experiment. It is sensitive primarily to electron neutrinos, and is thus complementary to water Cerenkov and organic scintillation detectors which are sensitive primarily to electron anti-neutrinos. A comparison of the rates in these complementary detectors will enable a flavor decomposition of the neutrino flux from the next galactic core-collapse supernova. We have tentative ideas to build a 1000-ton detector in the Gran Sasso laboratory by using the lead from the decommissioned OPERA detector. We welcome new collaborators to join us.

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