

Abstract Submitted  
for the APR12 Meeting of  
The American Physical Society

**Trigger System Upgrades for the SNO+ Experiment** ANDREW MASTBAUM, The University of Pennsylvania, SNO+ COLLABORATION — The SNO+ experiment, which will study neutrino-less double beta decay, low-energy solar neutrinos, antineutrinos from reactors and natural sources, nucleon decay, and possibly supernova neutrinos, inherits its detector infrastructure from the SNO experiment. To accomplish its physics goals, SNO+ will use scintillation light in liquid LAB, in contrast to SNO's Cherenkov radiation in D<sub>2</sub>O, resulting in a significantly higher light yield. To cope with this increase, readout and analog trigger electronics required redesign. The new analog trigger, in addition to handling higher-current signals, adds programmable logic which will capture below-threshold secondary decays, providing a coincidence tag for some important backgrounds. We present an overview of the experiment and a discussion of the new trigger electronics and their benefits.

Andrew Mastbaum  
The University of Pennsylvania

Date submitted: 11 Jan 2012

Electronic form version 1.4