NuDOT: A Prototype Directional Liquid Scintillator

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NuDOT is a ton-scale prototype of a directional liquid scintillator. The direction of particles is reconstructed using a combination of fast photodetector timing, long wavelength sensitivity and novel liquid scintillators. The detector has been constructed and will be commissioned this summer. We have currently planned a 3-5 yr surface run for demonstrating the technique on this scale and the testing of several technologies to increase the sensitivity of the detector. We will present the current program and several options for underground running that may complement a future liquid scintillator program at SNOLAB.

Presenter: Y GRUSZKO, Julieta

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