

Neil Spooner

University of Sheffield (UK)

**Galactic Signatures and Directional Detection of
Particle Dark Matter
The CYGNUS Project and Probing below the
Neutrino Floor**

Abstract

I'll briefly review the arguments for and status of particle dark matter searches and then focus on the possibility of looking for a definitive galactic signature. There have been several hints for WIMP dark matter over the years. There are new efforts to study this, for instance DM-ICE at the South Pole. I'll describe the efforts and latest results then focus on prospects for a directional signal using gas Time Projection Chamber technology including the new CYGNUS global collaboration aiming to deploy targets at multiple latitudes deep underground.

**April 05, 2017 - 10:00 am
LNGS - "E. Majorana" room**