

## **Effects of Threshold Energy on Determinations of Properties of Low-Mass WIMPs from Direct Dark Matter Detection Experiments**

*Wednesday 26 July 2017 15:30 (15 minutes)*

In this talk, we discuss the effects of a non-negligible threshold energy on our model-independent methods developed for reconstructing WIMP properties by using measured recoil energies in direct Dark Matter detection experiments directly. Our expressions for reconstructing the mass and the (ratios between the) spin-independent and the spin-dependent WIMP-nucleon couplings have been modified. We will focus on low-mass ( $m_\chi \lesssim 50$  GeV) WIMPs and present some (preliminary) numerical results obtained by Monte-Carlo simulations.

**Primary author:** Dr SHAN, Chung-Lin (Xinjiang Astronomical Observatory, Chinese Academy of Sciences)

**Presenter:** Dr SHAN, Chung-Lin (Xinjiang Astronomical Observatory, Chinese Academy of Sciences)

**Session Classification:** Dark Matter

**Track Classification:** Dark Matter