



SECTION DE PHYSIQUE  
**COLLOQUE  
DE PHYSIQUE**

24, QUAI ERNEST-ANSERMET, CH-1211 GENÈVE 4

**Lundi 20 mars 2017, 12h30**  
Ecole de Physique, Auditoire Stueckelberg

**«Illuminating the dark: direct searches for cold dark  
matter in the Milky Way»**

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**Abstract:**

Cosmological observations and the dynamics of the Milky Way provide strong evidence for an invisible and dominant mass component, that so far reveals its presence only by its gravitational interaction. If the dark matter is made of Weakly Interacting Massive Particles (WIMPs), it can be directly detected via elastic scattering from nuclei in ultra-low background, deep-underground detectors. WIMPs arise naturally in beyond standard model theories, a popular example being the neutralino, or the lightest supersymmetric particle. After an introduction to the direct dark matter detection method, I will review the current experimental techniques to search for these hypothetical particles. The focus will be on recent results, and on the most promising techniques for the future.

Une collation en compagnie du conférencier sera offerte après le colloque.

Prof. Dmitry Abani

Genève, le 7 mars 2017/nc

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