



**LNGS SEMINARS**

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# **Overview on non-relativistic effective field theories for the direct dark matter search**

*Abstract*

The need of a reliable comparison among the several experimental searches of dark matter in lab has motivated the elaboration of a particular theoretical method, that involves both particle and nuclear-physics aspects. This method, known as "non relativistic effective field theories" (NREFT), is a theoretical tool to model the interactions of the dark matter (WIMP) particles with nuclei. I will provide an overview of this method and describe its applications for the observables of major interest. I will also discuss certain recent developments, that are aimed at extend the scientific potential of the original approach.

December 18, 2018 - h 2:30 pm  
LNGS - "B. Pontecorvo" room  
<http://agenda.infn.it/event/zema>