



UNIVERSITY OF CRETE
DEPARTMENT OF PHYSICS



CCN

CRETE CENTER FOR
QUANTUM COMPLEXITY
AND NANOTECHNOLOGY

ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

PHYSICS COLLOQUIUM

Thursday, 17 December 2015

17:00 -18:00

3rd Floor Seminar Room

“Searching for ultralight dark matter with atomic spectroscopy and nuclear resonance”

Prof. Dmitry Budker

Helmholtz Institute Mainz, Johannes Gutenberg University
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Abstract

Axions, axion-like particles (ALPs), dilatons, and other ultralight (masses from 10^{-4} down to 10^{-22} eV) particles have been discussed as possible candidates for dark matter. An interesting feature of these ideas is that they lead to predictions of potentially observable transient and oscillating effects. I will describe how we are looking for these as well as the relation of such experiments to tests of fundamental symmetries (P, CP, T, CPT ...)