CFEL SCIENCE

SEMINAR

3rd December 2015 – 10:00 h

CFEL – Building 99, seminar room I+II (ground floor)

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Any Light Particle Search (ALPS) at DESY

In the recent years it became clear that challenges in particle physics and cosmology like the nature of dark matter may not only be solved at large accelerator facilities. So-called Weakly Interacting Slim Particles (WISPs), with the axion being its most famous representative, have caught increasing interest in theoretical and experimental physics. Presently a number of experiments are taking data or are being prepared to look for dark matter WISPs, solar WISPs or WISPs generated in the laboratory. At DESY, the ALPS II experiment is on the way to probe for WISPs by “shining light through a wall”. Experience from large interferometers searching for gravitational waves is being adapted to construct the optics of ALPS II. Two talks will give an overview on experimental WISP searches focusing on ALPS II at DESY and discuss the optical challenges in some detail.

Host: Jochen Küpper / CFEL Molecular Physics Seminar