



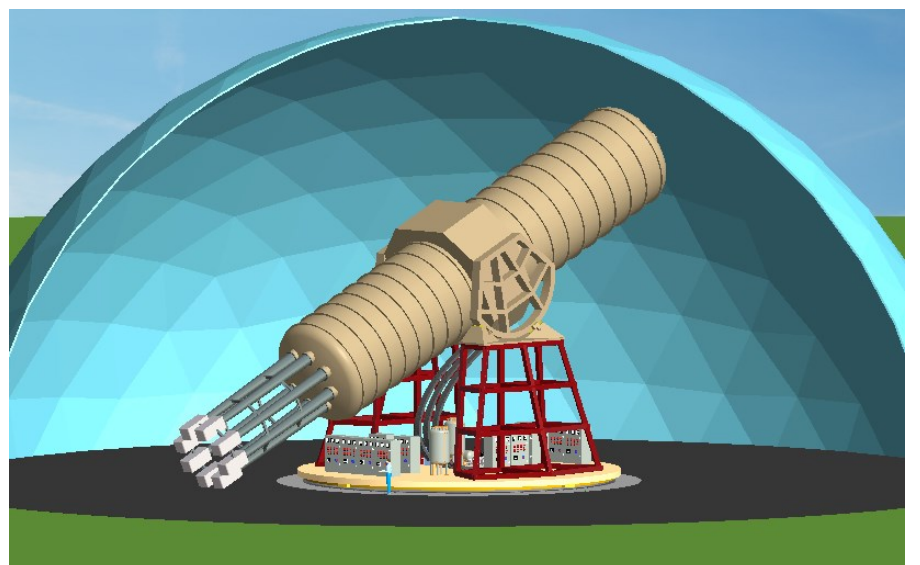
Axions from the Sun?

Exploring the low-energy frontier with the International Axion Observatory IAXO.

Tuesday, 04 July 2017, 16:45 h
DESY Auditorium

Klaus Desch
(Univ. Bonn)

The seminar is embedded in the
“7th General IAXO Collaboration Meeting”
<http://indico.cern.ch/event/622974>



Physics beyond the Standard Model may hide at very low energies. The axion, postulated by Wilczek and Weinberg almost 40 years ago, is a very light, very weakly interacting new particle which, if it exists, could answer a long-standing question of fundamental physics: why is the electric dipole moment of the neutron so unnaturally small? Moreover, axions may be (all or part of) the dark matter in our universe. Axions may be copiously produced in our sun. The proposed IAXO experiment will be 10000 times more sensitive to these particles than the previous leading experiment, CAST at CERN. In the talk, I will motivate solar and other axion searches and will present the current planning of IAXO which brings together technologies from particle physics, astrophysics and accelerator physics. I will also discuss a potential step-wise realisation of IAXO.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**