

**Title:**           **The enigmatic sun**

Name:           Konstantin Zioutas

Affiliation:   Patras University / CERN

Email:          [Konstantin.Zioutas@cern.ch](mailto:Konstantin.Zioutas@cern.ch)

Abstract

Various solar observations remained so far enigmatic, even though there is no lack of various conventional suggestions to explain their appearance. Note that their temperature is predominantly in the sub-keV range, and, they appear enhanced in places with strong magnetic fields and/or strong magnetic field gradients. Such properties are suggestive for the involvement of exotic particles like axions, ALPs, WISPs, (and more?). The exact enhancement mechanism of such non-standard processes remains also elusive and challenging. In this talk some of the mostly striking solar aspects will be presented and considered from the point of view of axions or other similar exotica, which is the topic of this workshop.