



Contribution ID: 41

Type: **not specified**

A fresh look on the limit on light ALPs from SN1987A

Wednesday 24 September 2014 17:10 (15 minutes)

We revisit the limit on very light axion-like particles from the absence of coincidental gamma rays with the neutrino burst from SN1987A. This is done using updated supernova simulations, updated models for the magnetic field inside the Galaxy, and taking into account the effects of proton degeneracy and mass reduction on the production of these particles in the supernova core.

Primary author: Dr PAYEZ, Alexandre (DESY)

Co-authors: Dr MIRIZZI, Alessandro (Hamburg U.); Dr RINGWALD, Andreas (DESY); Dr EVOLI, Carmelo (Hamburg U.); Dr GIANNOTTI, Maurizio (Barry U.); Dr FISCHER, Tobias (Wroclaw U.)

Presenter: Dr PAYEZ, Alexandre (DESY)

Session Classification: Cosmology & Astroparticle Physics A