

Methodology of experimental search for neutrinos from solar flares in Borexino detector

Thursday, 13 October 2016 13:30 (15)

Solar flares are sudden variations in brightness observed near the Sun's surface. Some theoretical models predict production of electron and muon neutrinos with energies up to few tens of MeV during solar flares. In 1980th the Homestake experiment reported excess of detected neutrino events possibly correlated with large solar flares. Since then the interest to similar studies by other neutrino detectors has increased. In this talk we summarize the status of experimental searches and describe the methodology for the study of neutrinos from solar flares in Borexino liquid scintillator detector.

Primary author(s) : Ms. TOROPOVA, Maria (NRC Kurchatov Institute)

Co-author(s) : Ms. BORODIKHINA, Liudmila (NRC Kurchatov Institute); Mr. ATROSHCHENKO, Viktor (NRC Kurchatov Institute)

Presenter(s) : Ms. TOROPOVA, Maria (NRC Kurchatov Institute)

Session Classification : Nuclear physics and particle physics - parallel VI

Track Classification : Nuclear physics and particle physics