



Münchner Physik- Kolloquium

at home!
Sommer
2021

Dieses Semester findet das Kolloquium online statt: <https://tum-conf.zoom.us/j/93234766313>

Complete solar neutrino spectroscopy with Borexino

Prof. Dr. Lothar Oberauer, TUM

Monday, 3 May 2021, 17:15 h

<https://tum-conf.zoom.us/j/93234766313> Meeting-ID: 932 3476 6313 Password: Kolloquium
Please install the software in advance.

After more than 10 years of data taking the Borexino experiment accomplished the complete spectroscopy of all relevant solar neutrino branches, including those from the rare CNO-fusion processes. This measurements were made possible by achieving ultra-low levels of background radiation in the liquid scintillator detector of Borexino, which is located in the Gran-Sasso underground laboratory. In the talk I will describe the main features of the detector and techniques used to separate neutrino signals from background events. The implications of the results in the frame of neutrino oscillations and flavor conversion due to solar matter effects will be shown. Finally, I will discuss the impact of Borexino results on the question about the solar metallicity and complete with a short outlook about future prospects in this field.

Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Prof. Dr. Lothar Oberauer before his Munich Physics Colloquium talk.

Be curious and feel free to ask any question.

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more information: <https://www.moodle.tum.de/course/view.php?id=57309>

