



Das Institut für Physik

Institutsbereich Geophysik, Astrophysik und Meteorologie

lädt zu folgendem Vortrag

im Rahmen des **Astrophysikalischen Kolloquiums** ein:

**"State of the art of solar models:
seismology, opacities, neutrinos and
implications for stellar physics"**

Prof. Dr. Aldo Serenelli

Institute of Space Sciences (ICE, CSIC), Barcelona, Spain

The detailed modeling of the solar interior has been in crisis for more than 15 years so far, after the development of 3D models of solar atmospheres. Turning a crisis into an opportunity, this has led to revision of the paradigm of the standard solar model as a framework for modeling the Sun (and other stars) as well as the microscopic physics involved. In this talk, I will discuss the latest results on helioseismology, solar neutrinos and solar modeling, placing them in the context of the solar modeling crisis. Regarding the microphysics, I will present the latest advances in the determination of radiative opacities. This is the most promising solution to the problem and has a potential impact for stellar physics as a whole but, in particular, for models of solar-like stars, the main target of ongoing and future asteroseismic missions.

Time: **Wednesday, April 28, 2021, 17:00 CEST (st!)**

Meeting: <https://unigraz.webex.com/meet/paul.beck>

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