



EINLADUNG

im Rahmen Literaturseminars

zum Vortrag

von

Oliver Hahn

(Astrophysics, Vienna)

über

***„Large-scale structure cosmology at the interface of numerical
and analytical techniques“***

Abstract:

The quest for physics beyond the standard models of cosmology and particle physics is the primary motivation for upcoming observatories in space and on earth.

The cosmic large-scale structure provides a unique testing ground for connecting fundamental physics to astronomical observations.

A detection of the signature of massive neutrinos, deviations from Einstein's theory of gravity, physical insights into the earliest inflationary phase of the Universe and the microphysical nature of dark matter and dark energy are all within the potential reach of these experiments in the next decade.

In order to accurately link observations to fundamental physics, analytical, numerical, and data-driven techniques will be used.

I will give a general introduction and discuss recent progress at the interface between numerical simulations and analytical calculations that enable faster and more robust predictions of the matter distribution in our Universe.

Zeit: Donnerstag, **01.06.2023**, **15.30 h**

Ort: Seminarraum A - Währinger Straße 17, 2. Stock

gez.: P. Chrusciel, D. Fajman