

Das Institut für Physik

Fachbereich Astrophysik und Geophysik

lädt zu folgendem Vortrag

im Rahmen des **Astrophysikalischen Kolloquiums** ein:

Dynamic Phenomena in the Solar Corona: Insights from MHD Simulations

Dr. Andrea Costa & Dr. Mariana Cécere

CONICET-UNC Instituto de Astronomía Teórica y Experimental (IATE)

In this talk, we will summarize some of the numerical efforts carried out by our plasma group in Argentina to model solar phenomena. We present the case of ubiquitous oscillatory emissions known as quasi-periodic pulsations (QPPs), which are associated with a wide range of energy releases and spatio-temporal scales, from loops and sunspots to Moreton waves. We also discuss the role of magnetic flux ropes in coronal mass ejections (CMEs), focusing on the mechanisms that determine whether an eruption succeeds, is deflected, or ultimately fails.

In addition, we show preliminary results from our visit to Graz, within the framework of the EU Horizon Europe project *DynaSun*, related to the study of coronal dimming. The combined numerical and observational approach allows us to gain deeper insight into complex solar events and motivates us to pursue new and challenging research directions.

Zeit: **Dienstag, 14. Oktober 2024 um 10:30 Uhr s.t.**

Ort: **SR 05.11** (1. Stock)

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