

Das Institut für Physik

Fachbereich Astrophysik und Geophysik

lädt zu folgendem Vortrag

im Rahmen des **Astrophysikalischen Kolloquiums** ein:

The Magnetic Topology of Solar Eruptions: Can We Find the Skeleton that Comes Out of the Closet?

Dr. Graham Barnes

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The topology of the coronal magnetic field plays a key role in determining whether a solar reconnection event will result in an eruption, either by influencing the location of magnetic reconnection, or by determining the access to open magnetic flux that allows an eruption to proceed out into the heliosphere as a Coronal Mass Ejection. Recent modeling efforts have succeeded in producing eruptions using a variety of onset mechanisms, but the question that remains is which of these actually trigger eruptions on the Sun?

Each of these mechanisms requires a particular magnetic topology. I will describe components of the topological skeleton for active regions, including the use of current channels caused by coronal electric currents as a proxy for magnetic flux ropes, and the separatrix surfaces associated with magnetic null points in a potential field source surface model. For selected events, I will show how different parts of the skeleton may be responsible for the observed flare ribbons.

Zeit: **Dienstag, 14. Mai 2024 um 16:00 Uhr s.t.**

Ort: **SR 05.13** (1. Stock)

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