

Physikalisches Kolloquium Universität Kiel
Wintersemester 2018 / 2019

Dienstag, 05. Februar 2019

PD Dr. Horst Fichtner

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Institut für Theoretische Physik IV)

**Power Laws in Heliospheric Physics: Evidence for Nonlinear
Diffusion, Anomalous Transport and Non-Extensive Entropy?**

Numerous measurements of space plasmas and energetic particles by many spacecraft, including the two Voyagers that have by now both left the heliosphere, have revealed the almost ubiquitous presence of power-law behaviour of distribution functions both in velocity and in configuration space. Besides being indicative of acceleration and transport processes, such power laws have been considered as evidence for 'non-standard' physics, particularly for so-called anomalous transport and for a non-extensive, i.e. non-additive entropy. The talk will demonstrate how heliospheric physics can contribute to answer related questions and, thus, how it is related to such fundamental aspects of physics.

Der Vortrag beginnt um **16:15 Uhr** im **Hans-Geiger-Hörsaal (LS13-R.52)**
des Physikzentrums.

Ab **16:00 Uhr** werden **Kaffee** und **Tee** angeboten.

W.J. Duschl
für die Dozenten der Physik

Gastgeber: Prof. Heber