

15. Oktober 2021

Einladung zum Physikalischen Kolloquium

22.10.2021 **Manfred Fiebig, ETH Zürich**
»Having Fun with Multiferroic Order Parameters«
Einführung: U. Husemann

Multiferroics are materials simultaneously exhibiting magnetic and electric order. Requirements to "good multiferroics" are tough. They are supposed to have a spontaneous magnetization and a spontaneous polarization, preferably parallel to each other, with a strong magnetoelectric coupling between them to permit magnetization control by a small voltage rather than by an energy-intensive magnetic field. Because of all these requirements, multiferroic are typically described by a very complex set of order parameters — complex enough to fulfil so many conditions at once. With the world's focus on electric-field-controlled magnetic order, it goes unnoticed that these degrees of freedom will permit many phenomena other than the coveted magnetoelectric coupling. In my talk, I will describe the quest for such phenomena in our group. They include a remarkable inversion of a domain configuration, a verification of post-Big-Bang processes in the universe and — believe it or not — a form of teleportation.

Der Vortrag findet um 15:45 Uhr im Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22), statt. Bitte beachten Sie, dass das Betreten des Hörsaals nur unter Einhaltung der „3G-Regel“ erlaubt ist.