



PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 26.10.2016, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1



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A n t r i t t s v o r l e s u n g

***"SUPER meets NANO: From nanopatterned
superconductors to metamaterials"***

A blank piece of paper is open for further patterning. It can be covered with words, symbols, or colors, breaking the symmetry of the blank paper and producing a sensory or abstract pattern. This pattern tells us a story, depicts an object, invokes a hidden feeling... . In this sense, patterning can generate a variety of new properties. In analogy to that, breaking the symmetry of superconducting films by nano-patterning results in novel properties unseen in pristine materials. This sets the stage for a new fascinating domain of science and engineering at the interface between superconductivity research and nanotechnology – Abrikosov fluxonics – which will be introduced in the present talk with a particular focus on microwave applications and metamaterials as miniature devices with high operation frequencies and low energy losses.

Die Dozenten der Physik