



Einladung zum Physikalischen Kolloquium

**Montag, 16.06.2014
16:15 Uhr in N24/H13**



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Nanoscopy with focused light

For more than a century, it has been widely accepted that diffraction of light precludes any lens-based optical microscope from discerning details smaller than about half of the wavelength of light (~200 nm). However, in the 1990's it was discovered that basic state transitions in a fluorophore can be exploited to eliminate the resolution-limiting role of diffraction. Since then, fluorescence microscopes have been developed that are now able to resolve on the nanometer scale. We discuss the basic principles of these nanoscopy (superresolution) concepts with particular emphasis on the first viable far-field 'nanoscopy' method, STED microscopy. We show their scope of applications in the life sciences and beyond.

Hell, S. W. (2007): "Far-Field Optical Nanoscopy". [Science](#) 316, 1153 - 1158.

Ab 15.45 Kaffee, Tee und Kekse vor dem Hörsaal H13

Organisation: Prof. Jelezko Tel. 23750

Host: Prof. Jelezko Tel. 23750, off.: 23751