Einladung zum

Würzburger Mathematischen Kolloquium

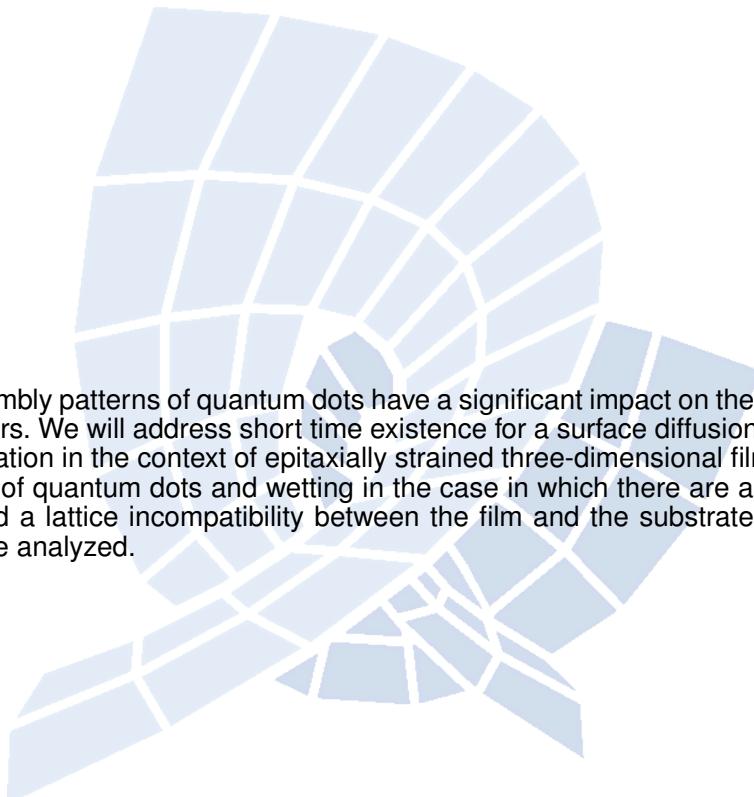Julius-Maximilians-Universität Würzburg • Institut für Mathematik

Prof. Dr. Irene Fonseca

Carnegie Mellon University, Pittsburgh, U.S.A.

Quantum Dots and Dislocations: Dynamics of Materials Defects

Mittwoch, 17. Feb. 2016 • 14:15 Uhr

Zentraler HS-Bau Z6, HS 0.001

Inhaltsangabe:

The formation and assembly patterns of quantum dots have a significant impact on the optoelectronic properties of semiconductors. We will address short time existence for a surface diffusion evolution equation with curvature regularization in the context of epitaxially strained three-dimensional films. We will discuss optimal faceted shapes of quantum dots and wetting in the case in which there are a non-vanishing crystallographic miscut and a lattice incompatibility between the film and the substrate. The nucleation of misfit dislocations will be analyzed.

Zu diesem Vortrag laden wir Sie herzlich ein.

gez. Christian Klingenberg