Stuttgarter Physikalisches Kolloquium

Max-Planck-Institut für Festkörperforschung
Max-Planck-Institut für Intelligente Systeme
Fachbereich Physik, Universität Stuttgart

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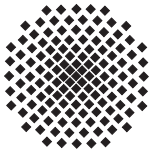

Dienstag, 9. April 2013	17.15 Uhr	Hörsaal 2 D5

Stuttgarter Max-Planck-Institute, Heisenbergstraße 1, 70569 Stuttgart-Büsnau

Cluster growth on surfaces – densities, morphologies, applications

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Abstract

Understanding and control of cluster and thin film growth on solid surfaces is a subject of intensive research to develop nanomaterials with new physical properties. Here we review basic theoretical concepts to describe submonolayer growth kinetics under non-equilibrium conditions. It is shown how these concepts can be extended and further developed to treat self-organized cluster formation in material systems of current interest, such as nanoalloys and molecular clusters in organic thin film growth. The presentation is focused on ideal flat surfaces to limit the scope and to discuss key ideas in a transparent way. Open experimental and theoretical challenges are pointed out.