Einladung

zum

ZHR-Kolloquium

Titel: Reaction-diffusion modelling of bacterial colonies

Referent: Prof. Dr. Masayasu Mimura Hiroshima University, Graduate School of Science Institute for Nonlinear Sciences and Applied Mathematics

Abstract:

It is observed in experiments that self-organized colonial patterns are formed in bacterial growth. Especially, Matsushita et al. observed a diversity of patterns of B. subtilis depending on the environmental situation. Particularly, under worse conditions, DLA-like patterns are generated. On the other hand, Budrene and Berg found in the growth of E. coli. that flower-like patterns appear. It is believed that such complex patterns are caused by a self-organizing mechanism. In this talk, I would like to discuss the mechanism how such patterns are generated, by using phenomenological models of reaction and diffusion equations to describe the time-evolution of colonies.

Ort:Willers-Bau C207Zeit:Montag, den 17. Oktober 2003, 14.00 Uhr

gez. Prof. Dr. W.E. Nagel

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