

Physics seminar

Tuesday, 16th November 2010 at 16h15

(coffee at 16h00)

Campus Limpertsberg

Room BS 0.03

Dr. Rosalind Allen

The University of Edinburgh

“Modelling the growth of bacterial populations in changing environments”

Bacteria are well-known for causing disease but in fact they play an important and much more positive role in ensuring healthy functioning of human and animal guts, soil fertility and global biogeochemical cycles. Understanding how bacterial populations grow and interact with each other and with their environment is therefore very important. From a theoretical point of view, growing bacterial populations are nonequilibrium systems which can have interesting dynamical properties. I will discuss some recent theoretical work on how random switching can prove a good strategy for bacteria in environments with occasional "catastrophes", and some preliminary results on simple models with interactions between several bacterial populations.

Next Physics Seminars

- Tuesday, 30th November : Patrick Matgen, CRP Gabriel Lippmann, Environment and Agro-Biotechnologies
in Belval, 16:15 the topic will be announced shortly
- Tuesday, 14th December : Prof. Antoine Kies , Laboratory for Radiation Physics, the University of Luxembourg
Campus Limpertsberg, 16:15 “Radiological and CO₂ investigations in a degassing mofette and around a volcano”
- Tuesday, 11th Jan. 2011 Johannes Fischer, PhD student, the University of Luxembourg
in Belval, 16:15 “Annealing of binary stacks”
- Tuesday, 25th Jan. 2011 : Prof. Dr.-Ing. Heike Emmerich,
Campus Limpertsberg, 16:15 Lehrstuhl Material-und Prozesssimulation Universität Bayreuth
“Phasenfeldsimulation”