

Computational philosophy: lessons from simple models

Date: October 11 - 13, 2007,
AUD. A at the Niels Bohr Institute.
Blegdamsvej 17

10 october: Informal gathering late afternoon/early evening at CMOL common room (Kb at NBI).
(Telf. for contact organizers/enter NBI +45 28755352)

Preliminary program

Thursday, 11 october

9:00: Registration 9:20: Opening Remarks

9:30-11:00

Ken Dill: *"Physical dynamics in small-number systems"*

Ayse Erzan: *"Complex networks with a distribution of interaction specificities: application to gene regulatory networks"*

Sergei Maslov: *"Propagation of perturbations in protein binding networks"*

COFFEE

12:00-13:00

Robijn Bruinsma: *"The hidden code: DNA read-out by nucleosomes"*

Sandeep Krishna: *"Uptake and usage motifs in bacteria and society"*

LUNCH at NBI canteen

14:30-15:30: Physics concepts in economic and social systems:

Hans Hermann: *"Modeling social relations"*

Attilio Stella: *"Scaling and Market efficiency determine the stochastic evolution of an index"*

COFFEE

16:30-17:30: The brain, with convener Dante Chialvo:

Dietmar Plenz: *"Neuronal avalanches in the brain"*

Claudius Gros: *"Transient state dynamics - simple models and possible roles in global brain dynamics"*

18:30 - : Buffet at NBI canteen

Friday 12 october

9:30-10:30: Models of Gene Dynamics

Stefan Bornholdt: tba

Maximo Aldana: tba

COFFEE

11:45-13:00: convener Kim Sneppen

Carl Bergstrom: *"Maps of networks"*

Martin Ackermann: *"Phenotypic differences within clonal populations of bacteria, from aging to pathogenesis"*

LUNCH at NBI canteen

14:30-15:30:

Hiizu Nakanishi: "*Sweeping Interface Dynamics*"

Peter Minnhagen: "*A Blind Watchmaker's Network*"

COFFEE

16:30-17:30:

Mogens H. Jensen: "*Importance of calm periods in turbulence and finance*"

Peter Grassberger: "*Quantum mechanics and us: who is the weirdo?*"

18:30-.....: WORKSHOP DINNER

Saturday 13 october

9:30-10:30:

Tamas Vicsek: "*Simple models of Flocking*"

Katarzyna Sznajd-Weron: "*Can we treat people like particles? - a simple model of opinion formation*"

COFFEE

11:30-13:00:

Sidney Redner: "*Dynamics of Voting*"

Petter Holme: "*Nonequilibrium Phase Transition in Co-evolving Networks of Opinions*"

Vishal Sood: "*Noisy messaging on Networks*"

LUNCH: Buffet at aud C.

14:30-15:30:

Joakim Matthiesen: "*Multiscaling unloaded: graphs and surfaces*"

Alvaro Corral: "*Scale invariant clustering in avalanche-evolving systems and in human language*"

COFFEE

16:30-17:30: Final Session: convener Maya Paczuski

Jacob Foster: "*Simulation, Reality, and the Social: A Virtual Provocation*" (20 minutes)

Kim Sneppen: "*Positive Feedback in Social Network Dynamics*" (20 minutes)