Invitation to Seminar (SS 2009)

What is life?

Objective

Systems biology seeks to explain biological functions in terms of the organization between components at multiple temporal and spatial scales. This raises questions about the general organizational principles of living systems, and their origins. In order to understand these principles, it is informative to look at the major transitions in evolution that have transformed life from the first replicating molecules to modern multicellular organisms. Mathematical and computational modelling is essential in finding the key principles of the emergence and dynamical coupling of levels of organization. In this seminar, we explore the mechanisms involved in the origin of life, the emergence of multicellularity, and the evolution of development. By means of talks, discussions and computer simulations, key questions and models will be introduced. The seminar is intended for undergraduate and graduate students in biology, physics, mathematics, medical and computer sciences who are interested in this highly interdisciplinary field.

Time and location

Four Monday afternoons 14.00-17.00: **May 18, June 8, June 29, July 6**, 2009
Location: **INF-1096**, Computer Science Dept. of TU Dresden at Nöthnitzer Str. 46

Kickoff meeting and distribution of talks

April 27, 14.00-15.00, INF-1096

Organizers

Christopher Antos, Center for Regenerative Therapies Dresden (CRTD)
Lutz Brusch, ZIH, TU Dresden
Walter de Back, ZIH, TU Dresden
Andreas Deutsch, ZIH, TU Dresden
Andy Oates, Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG)

Seminar website

http://www.tu-dresden.de/zih/lehre/bio/ss2009_sem

Contact

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