informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz[1] lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Gabriele Scheler

Principles of Intracellular Signaling

Friday, October 30, 11:00 am,
Room JKU S2-044 in Science Park 2

Abstract:

What can we learn from intracellular signaling? Cells communicate by chemical substances. They generate 'signals' by release of substances which act as ligands to receptors at cell surfaces. Cells react to hundreds of chemical substances in the extracellular environment. They need to integrate signals, sort them and combine them, and provide cellular responses. Principles of cell signaling are more and more being elucidated with the help of complex mathematical and computational models. I will present my own work on an abstraction of dynamical systems using matrix computations and the implications that derive from this.

We will also talk about the relevance of intracellular signaling to models of natural computation.

Short Bio:

Gabriele Scheler obtained a PhD from the LMU München in Logic and Scientific Theory. After positions in Computational Linguistics at the University of Heidelberg and Protein Sequence Analysis at the MPI for Biochemistry in Martinsried she worked at the Department of Computer Science at the Technical University in Munich on Machine Learning and Neural Networks. She moved to the Salk institute in San Diego in 1998, and since has focused on modeling of neuronal cells, from an electrophysiological as well as a systems biology perspective. She continued at Stanford university, working on comprehensive models of neural plasticity and memory, and is presently engaged in doing a non-profit startup on mathematical biology.

Univ.-Prof. Dr. Sepp Hochreiter
Institute of Bioinformatics

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[1] Der Fachbereich (http://informatik.jku.at) besteht aus folgenden Instituten:
Application Oriented Knowledge Processing (FAW), Bioinformatics, Computational Perception, Computer Architecture, Applied Systems Research and Statistics, Computer Graphics, Formal Models and Verification, Networks and Security, Integrated Circuits, Pervasive Computing, Software Systems Engineering, System Software, Telecooperation, Signal Processing