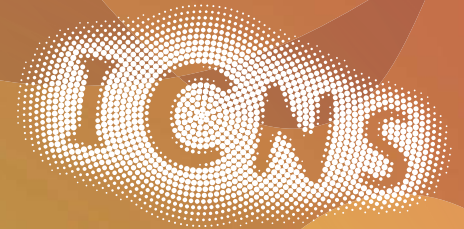


Overview on Cognitive-, Neuro- and Intelligence Sciences

tutorial

Sept 19th and 21st, 2016 | 9 am - 5 pm

MPI MSP Halle (Saale), Germany
Old Library | A 2.20



INTERNATIONAL CENTER
FOR NANO-SYSTEMS

Goal

MPI scientists, who have an original micro-physics background, are welcome to join the landscape of the sciences of cognitive information processing:

cognitive science, artificial intelligence, selected aspects from signal processing and control, computational and cognitive neuroscience, machine learning, cognitive robotics and neuro-robotics, computational linguistics, selected aspects from computer science, with a little spicing from artificial life and dynamical systems theory.

The tutorial will be done in a "family discussion" format, almost no high-gloss slides, much writing on the board, always open for spontaneous digressions when asked for.

Structure

- | Brief overviews on objectives, methods, highlight examples from the various fields
- | Reflections on the different (mathematical) modelling attitudes in these areas
- | The "big five": unresolved fundamental questions that cut across all these disciplines (neuro-symbolic integration, nature of "representation", complete agent architectures, design vs. learning vs. evolution, mathematics for utter complexity)
- | Applications of the wider cognitive computing fields

Lecturer

| Herbert Jaeger
Professor for Computational Science
Jacobs University Bremen