SFB/TR 8 Spatial Cognition / IQN
Video Conference

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Sparseness, invariance and independent coding in the visual system

In the last 50 years, we have gained remarkable insights into the machinery involved in sensory processing. In the last 25 years, a new approach has considered the relationship between the efficient coding of natural images and the properties of neurons in the sensory pathway. Efficient coding algorithms like Sparse Coding and ICA have proven to be influential models of sensory systems. The general approach provides important insights into why sensory systems code information as they do. Furthermore, the insights we gain from sensory coding can provide insights into the development of more efficient representations of data. In this talk, we will look at some of the limitations of sparseness and independence in modeling sensory systems. We will look at some of the information processing strategies that the visual system uses to deal with these limitations and allow for both high selectivity and invariance.

Donnerstag, 21. Juli 2011
informelle Kaffeerunde: 13:45
Vortragsbeginn:14:00 Uhr
- Rotunde Cartesium,
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- Geb. 106, Raum 04 007,
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