Interdisciplinary FIAS Colloquium

Thursday, October 9, 2008, 14:30
FIAS, Ruth-Moufang-Str. 1, 60438 Frankfurt am Main
Lecture Hall 0.100
Speaker: Prof. Dr. Irving Biederman, Harold W. Dornsife Professor of Neuroscience,
University of Southern California, Los Angeles

Title: The Neural Basis of Object and Scene Understanding

Abstract: Despite significant progress in the development of computational schemes for classifying images into several categories, humans represent the only existence proof that a general-purpose object and scene understanding device is even possible. Twenty years ago, a proposal was advanced that a considerable range of behavioral phenomena associated with human object and scene recognition/understanding can be understood in terms of a representation positing an arrangement of simple part primitives distinguished by viewpoint invariant properties (= geons). Recent research on optical imaging as well as single unit activity of cells in macaque IT and behavioral and fMRI studies in humans provide a surprisingly strong confirmation of this proposal.