Special FIAS Colloquium

Tuesday, August 24, 2010, 16:00
FIAS, Ruth-Moufang-Str. 1, 60438 Frankfurt am Main, Lecture Hall 0.100

Speaker: Prof. Dr. Konrad Körding, Northwestern University, Chicago, IL
Title: How advances in neural recording will affect future data analysis techniques

Over the last five decades, progress in neural recording techniques has allowed the number of simultaneously recorded neurons to double approximately every 7 years, mimicking Moore’s law. Such exponential growth motivates us to ask how different data analysis techniques can benefit from larger numbers of recorded neurons. We find that information gained by mapping how neurons relate to stimuli or movement grows linearly, while information gained by mapping how neurons relate to one another grows considerably faster. The exponential scaling of the number of recorded neurons implies that data analysis techniques should strive to scale well with the number of recorded neurons.