

# Cologne Evolution Colloquium

Molecular Basis of  
Evolutionary Innovations

SFB 680

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## **Adaptation and distribution of beneficial fitness effects**

Although adaptation is common, the detailed mechanism by which the adaptive process occurs is poorly understood. I will describe our recent results on the properties of adaptive walk performed by a maladapted asexual population in which beneficial mutations fix sequentially until a local fitness peak is reached. We find a simple relationship between the trends in the fitness gain during successive steps of the adaptive walk and the extreme value domain of the distribution of beneficial fitness effects (DBFE). This result may be useful in the experimental determination of DBFE using adaptation dynamics.

Wednesday, November 12, 2014, 17:00  
University of Cologne, Institute for Genetics  
Seminar Room 0.46

Hosted by Joachim Krug