

# Cologne Evolution Colloquium

Gavin J. Sherlock

Stanford University

## **Population Dynamics, Beneficial Mutations and Evolutionary Trade-offs in Yeast**

We have developed a lineage tracking system, based on random DNA barcodes, that allows us to follow the emergence of adaptive lineages within an evolving population to characterize the dynamics of the evolutionary process. We can further use the lineage tags to identify and isolate specific lineages for whole genome sequencing, and fitness remeasurement, such that we can characterize the molecular basis of adaptation, and the costs incurred by such mutations in other experimental conditions. These data allow us to determine where within the growth cycle adaptive lineages gain their fitness benefits.

Wednesday, April 19, 2017, 17:00

University of Cologne, Institute for Theoretical Physics  
Conference Room 2, Ground Floor

Hosted by Dario Valenzano and Michael Lässig