SFB 680

MOLECULAR BASIS OF
EVOLUTIONARY INNOVATIONS

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Mechanisms and cellular economy of molecular machines

Cells contain billions of molecular machines that drive processes such as directed transport and processing of the genetic information. The talk will address theoretical approaches to the mechanisms of such machines and to their cellular economy. I will discuss how the stochastic dynamics of several molecular motors can be coordinated by mechanical forces through a tug-of-war mechanism and how a global picture of the machines that process the genetic information (RNA polymerases and ribosomes) reveals the different economic principles that underlie their use in a bacterial cell.

December 04, 16:45

Institute for Theoretical Physics, Zülpicher Str. 77, Seminar Room

Host: Joachim Krug and Michael Lässig

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