

Großes Physikalisches Kolloquium an der Universität zu Köln

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Kinetics of dCas9 target search in Escherichia coli

23.01.2018

16⁴⁵ Uhr / HS III



Cas9-based DNA targeting is radically different from that of transcription factors. Cas9 can be programmed by a guide RNA to target any sequence, at the price of the increased time required to open cellular dsDNA to test for complementarity. We have studied how much time it takes to locate a single target sequence in a living cell using single molecule fluorescence microscopy. We also measure how long time the bound dCas9 stays at a target sequence and what implications this has for repression of a targeted gene.

