

Seminar

Znanstvenog centra izvrsnosti QuantiXLie,
Hrvatskog biofizičkog društva i Fizičkog odsjeka

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First-passage times: a refreshing view of biophysical fluctuations

First-passage phenomena are ubiquitous in physics and biology. They represent processes where a certain condition (e.g. passage of a barrier, escape from a trap, cell division) is fulfilled at a time that depends on the fluctuating dynamics of the system of interest.

In this talk I will introduce the notion of first-passage and stopping times of stochastic processes and discuss applications of first-passage ideas to physics and biology. In particular I will discuss a novel model describing the erratic motion of RNA polymerases during backtracking states with first-passage times representing the recovery time prior to resume elongation.

The talk will continue with an appetizer of the most recent results of my group on the study of first-passage-time fingerprints of water diffusion near glutamine crystals.



Znanstveni centar izvrsnosti
za kvantne i kompleksne sustave te
reprezentacije Liejevih algebri

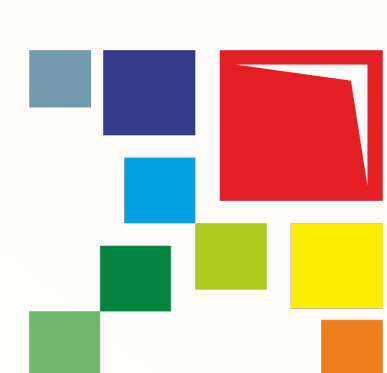
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**KONKURENTNOST
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