



KEMIJSKI INŠTITUT

Vabilo na Forum40 / Invitation to the Forum40

Dr. Jaka Sočan

D01, Theory Department

Četrtek / Thursday, 14. 12. 2023 ob / at 13:00

Velika predavalnica Kemijskega inštituta / Great Lecture Hall

WEBEX

<https://ki-ljubljana.webex.com/ki-ljubljana/j.php?MTID=m0759538fc7633b6307aba9fd094df5f4>

Join by meeting number (access code): 2790 366 5701

Meeting password: Dw5qDpCCw93 (39573722 from video systems)

Density-nematic coupling in linear biopolymers

Density and orientational order in linear polymers are coupled even in disordered, isotropic phase. The coupling can be discerned by analysis of thermal fluctuations within the system, providing a way to determine several of its physical properties. To connect the system's microscopic fluctuations to its macroscopic properties, a multiscale model of a polymer solution in an isotropic phase is set up. The amplitudes of fluctuations to be fed into such model can then be extracted either experimentally (e.g. through scattering experiments) or via simulations at the molecular level. Biopolymers provide a good study case for the latter approach, with their microscopic behaviour being well described at several levels of complexity.



Vljudno vabljeni / Kindly invited