



Models of Polymer Physics for Biological System

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Message from the Guest Editors

Dear Colleagues,

Polymer physics is a powerful tool for investigating several biological processes occurring in the cell. Indeed, models from polymer physics have a broad range of applications and have been successfully employed to study, for example, the three-dimensional structure of chromosomes at multiple scales, the phase-separation of protein aggregates, single-cell chromatin organization, DNA–protein interaction mechanisms and gene regulation.

The issue will cover a broad range of experimental, computational and theoretical studies based on polymer physics aiming to describe those aspects relevant to the cell. The research topics will also include molecular dynamics simulations, predictive methods, data analysis, meso-scale and coarse-grained polymer models, equilibrium and off-equilibrium processes and further applications. This issue will provide progress in and state-of-art applications of polymer physics to tackle specific and general questions arising in cell biology.

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Guest Editors





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