

Students' Annual Seminar

Exploring the chromosome-ribosome segregation using a high-resolution, data-integrated model for the *E. coli* chromosome

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Though thoroughly explored for the past two decades, the *E. coli* chromosome conformation remains unknown. We have obtained numerous glimpses into its organisation using a plethora of experiments, some of which we use here to build a high-resolution, hyper-branched polymer physics-based model for the same. We claim that the resultant model is one of the most accurate models to date which we have further used to explore the in-vivo chromosome-ribosome segregation of *E. coli*. The model reveals the presence of a central void which is populated by both monomeric and polymeric ribosomes and helps us obtain a spatially resolved picture of how the chromosome-ribosome segregation occurs.

Monday, Apr 3rd 2023

2:00 PM (Tea / Coffee 1.45 PM)

Seminar Hall, TIFR-H