

Genome functions in space and time



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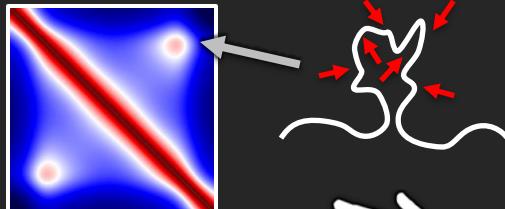
- + Axis 1: Controlling and programming biological living matter.
- +++ Axis 2: Emergence of spatial and temporal organization in living matter.
- ++ Axis 3: Information processing and dynamics of biological active matter.
- Axis 4: Driving evolution within living systems.

Team expertise

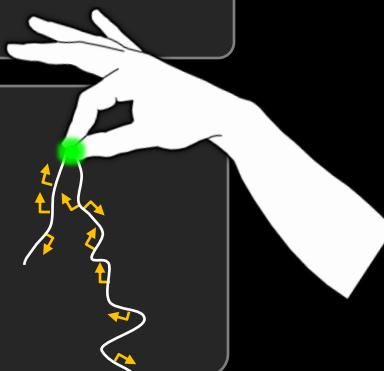
Genome & transcriptome imaging



Polymer modeling



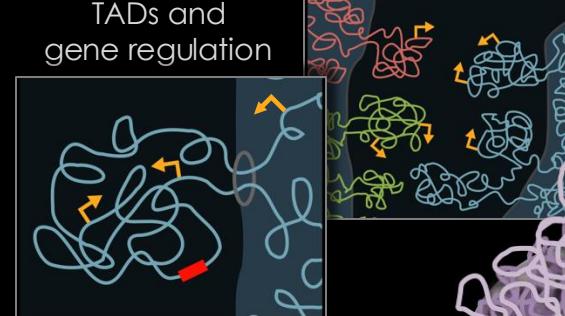
In cellulo mechanical manipulation of chromosomes



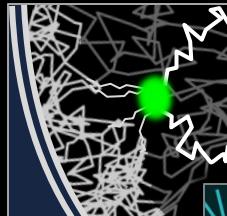
Magnetism
Microfabrication
Biochemistry
Molecular & cell biology
Microscopy
Image/data analysis
Polymer theory
Bioinformatics
Oligopaint FISH
Spatial transcriptomics

Studying the genome at the physics-biology interface

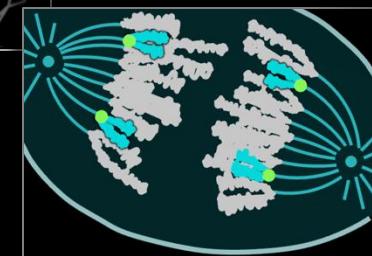
Compartmentalization of transcription



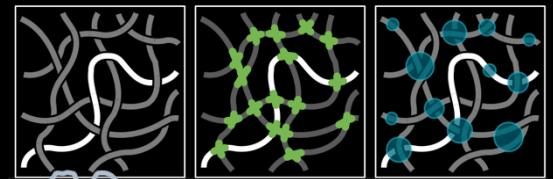
Coupling with nuclear envelope



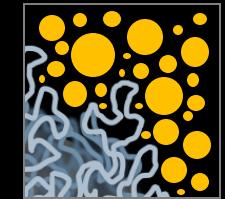
Mitosis & aneuploidy



Material states of chromatin



Molecular crowding



Nuclear electrobiology



Chromosome mechanics & relaxation

