

Physikalisches Kolloquium Einladung

Physics Colloquium Invitation

Monday, 22 November 2021

Format: Online via ZOOM, at 16:15

Dynamics of 3D Genome Structure and Function in Living Cells

Prof. Anders Sejr Hansen

Assistant Professor of Biological Engineering

MIT Department of Biological Engineering

Dab: <u>www.ashansenlab.com</u>

MIT BE: be.mit.edu/directory/anders-sejr-hansen



Mammalian genomes are folded in loops and loop domains by the proteins CTCF and Cohesin. These loop domains play key roles in gene regulation, DNA repair, replication, and other processes. We have recently developed new methods to visualize these loops and loop domains using super-resolution live-cell imaging as well as associated computational methods to understand the dynamics of chromatin looping. We will discuss what we have learned about the dynamics of chromatin looping, domain formation, and gene regulation from these studies.



Host: Prof. Dr. Christof Gebhardt, Institute of Biophysics

Organisation: Prof. Dr. Jens Michaelis, Institute of Biophysics, jens.michaelis@uni-ulm.de, +49-731-50-23050