

ITS @ The Graduate Center
Initiative for the Theoretical Sciences

Physics of Life: Students and Postdocs Edition

Register for virtual or in-person participation:

<https://bit.ly/37IABNP>

Please note **Fri 18 March registration deadline for in-person participation**

Friday 25 March 2022

The Segal Theater, The Graduate Center CUNY
365 Fifth Avenue in Manhattan

Schedule in Eastern Daylight Time (EDT):

| | | |
|---------------|--|-----------------------------|
| 10:00 - 11:00 | COFFEE AND BAGELS | Rm 5209 |
| | PHYSICS OF LIFE SYMPOSIUM | Segal Theater, 1st Floor |
| | Molecules, sensing, and control | |
| 11:00 - 11:30 | Co-translational folding allows misfolding-prone proteins to circumvent deep kinetic traps Amir Bitran Harvard University | |
| 11:30 - 12:00 | Mechanical control of transcription by DNA supercoiling Shubham Tripathi Rice University | |
| 12:00 - 12:30 | Sensitive thermometry with TRP channels through self-tuning to a bifurcation point Dr. Isabella Graf Yale University | |
| 12:30 - 1:30 | LUNCH | Rms 5209, 5301, 5305 |
| | Patterns and communities | |
| 1:30 - 2:00 | The emergent coarse-grainability of microbial ecosystems Jacob Moran Washington University in St. Louis | |

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|-------------|--|--|
| 2:00 - 2:30 | <p align="center">Manipulating bacterial aggregation alters competition and dynamics of multi-species communities in the zebrafish gut Deepika Sundarraman University of Oregon</p> | |
| 2:30 - 3:00 | <p align="center">[Virtual presentation] Visceral organ morphogenesis via calcium-patterned muscle contractions Dr. Noah Mitchell Kavli Institute for Theoretical Physics</p> | |
| 3:00 - 3:30 | BREAK | |
| | Neurons, networks, and behavior | |
| 3:30 - 4:00 | <p align="center">Mitochondrial distribution and maintenance in neurons: interplay of dynamics and morphology Anamika Agrawal University of California San Diego</p> | |
| 4:00 - 4:30 | <p align="center">A stable hippocampal code in freely flying bats Dr. William Liberti University of California, Berkeley</p> | |
| 4:30 - 5:00 | <p align="center">Learning and organization of memory for evolving patterns Dr. Oskar Schnaack Max Planck Institute for Dynamics and Self-Organization</p> | |

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Center for the Physics
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