

ITS @ The Graduate Center

Initiative for the Theoretical Sciences

Adaptation

Living systems achieve their extraordinary functions in part by adapting their strategies to the physics of their environment. This occurs on many timescales, through many mechanisms, from biochemical events in single cells to evolutionary changes in large populations. In this symposium we explore examples of adaptation across these many scales, searching for a unifying theoretical framework.

Lectures will be held in the Segal Theater
The Graduate Center, 365 Fifth Ave, in Manhattan.

Friday 6 December 2019

9:30 AM Coffee and bagels

10:00 AM **Adaptation and Bayesian forecasting in biological systems**
Thierry Mora, École Normale Supérieure and Princeton University

11:30 AM Coffee

12:00 PM **Neural adaptation: Theory, models, and mechanism**
Adrienne Fairhall, University of Washington

1:30 PM Lunch

2:30 PM **Adaptive strategies for chemical sensing and navigation**
Thierry Emonet, Yale University

4:00 PM Coffee

4:30 PM **Adaptation and control in molecular evolution**
Armita Nourmohammad, University of Washington

Sponsored by the Initiative for the Theoretical Sciences, and by the CUNY doctoral programs in Physics and Biology. Supported in part by the Center for the Physics of Biological Function, a joint effort of The Graduate Center and Princeton University.

For more information please visit <https://itsatcuny.org> and <https://biophysics.princeton.edu>.