The physics and biology of subcellular structure & remodeling

Thursday, September 6 — CMU, Cohen University Center, ***Rangos 1***

9:00– 9:15	**Welcome**
9:15–10:00	**Tobias Baumgart**, University of Pennylvania Complex biological membrane models: of bending and interfacial catalysis
10:00–10:30	**Tina Lee**, Carnegie Mellon University GTP hydrolysis promotes disassembly of the atlastin postfusion complex
10:30–11:00	**Morning Coffee**
11:00–11:30	**Tyler Shendruk**, Rockefeller University Building with Active Biofluids: Towards hybdrid bio-mechanical systems
11:30–12:00	**Aurelia Honerkamp-Smith**, Lehigh University Flow-generated mobility of proteins can probe membrane properties
12:00–12:30	**Zheng Shi**, Harvard University Cell membranes resist flow
12:30–14:00	**Lunch**
14:00–14:30	**James Faeder**, University of Pittsburgh Computational modeling of cell decision processes
14:30–15:00	**Moumita Das**, Rochester Institute of Technology Mechanical Structure function properties of subcellular and extracellular networks
15:00–15:30	**Chase Broedersz**, Ludwig-Maximilians-University Broken detailed balance in living systems
15:30–16:00	**Afternoon Coffee**
16:00–16:30	**Pierre Ronceray**, Princeton University Inferring stresses and forces in active living matter
16:30–17:15	**Pierre Sens**, Institut Curie Modelling membrane-bound cellular organelles with non-equilibrium dynamics

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Friday, September 7 — CMU, Cohen University Center, ***Rangos 3***

9:00– 9:30	**Tom Smithgall**, University of Pittsburgh Visualization of Host-Pathogen Interactions at Cellular Membranes
9:30–10:00	**Ulrike Endesfelder**, MPI for Terrestrial Microbiology Exploring cell-biology on a molecular level: Live-cell and quantitative localization microscopy
10:00–10:30	**Henri Franquelim**, MPI for Biochemistry Biomimetic remodeling of lipid membranes by curved DNA origami
10:30–11:00	**Morning Coffee**
11:00–11:30	**Anne-Florence Bitbol**, University Paris 6 Proteins: sequences and physics
11:30–12:15	**Joshua Zimmerberg**, NIH/NICHD How physical constraints mold random motion to create membrane remodeling in health and disease
12:15–12:20	**Closing remarks**

Conference location:
Carnegie Mellon University
Cohon University Center
5032 Forbes Avenue
Pittsburgh, PA 15213

Rooms:
Day 1: Rangos 1
Day 2: Rangos 3

Website of conference:
https://events.mcs.cmu.edu/biophysworkshop2018/

Local Organizers:
Kris Dahl, Department of Chemical Engineering
Markus Deserno, Department of Physics
Steve Garoff, Department of Physics
Fred Lanni, Department of Biological Sciences
Adam Linstedt, Department of Biological Sciences
Tina Lee, Department of Biological Sciences
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