

Room A, Tuesday	Room B, Tuesday
Robert Austin, Mary Lou Bailey, Komal Bhattacharyya Sean Carney	Aravind Chandrasekaran Vinicius Contessoto Thomas Day Esteban Dodero Rojas Yu Jing
Room C, Tuesday	Room D, Tuesday
Sangjin Kim Daniel Losowyj Monica Makurath Zhe Mei Diana Valverde Mendez	Jeff Gau Mauro Mugnai Matt Hourwitz Wen Jia Fangchen Liu
Room E, Thursday	Room F, Thursday
Andrew Schulz Sumit Sinha Jiuzhou Song Gabi Steinbach	Clark Templeton Jacob Tinnin Alice Troitskaia Kaustubh Wagh
Room G, Thursday	Room H, Thursday
Ushasi Roy Janaki Sheth Chongzhi Zhang Anshul Singhvi	Qin Ni Haoran Ni Clories Reinhardt Ivan Rey-Suarez
Room I, Thursday	Room J, Thursday
Erin McCaskey Tyler Hatch Soutick Saha Baxi Chong	Dilmini Wijesinghe Hao Wu Kelimar Diaz Susannah Zhang

Thursday

Andrew Schulz (Room E) Stretching the Truth about Elephant Trunks - Andrew Schulz, Colin Boyle, Madeline Boyle, Emily Fourney, Claire Higgins, David Hu

Sumit Sinha (Room E) Far from equilibrium dynamics of tracer particles in a growing tumor spheroid, (Himadri Samanta, Sumit Sinha, Dave Thirumalai))

Jiuzhou Song (Room E) Widespread hyper RNA editing sites in bovine genome

Gabi Steinback (Room E)

Title: Statistical physics of reproduction and death in biofilms Authors: Gabi Steinbach, Siu Lung Ng, Brian Hammer, Peter Yunker

Jacob Tinnin (Room F) Structure-Function Relations Underlying Interfacial Charge Transfer in Organic Photovoltaic Systems by Jacob Tinnin, , Srijana Bhandari, Pengzhi Zhang, Huseyin Aksu, Buddhadev Maiti, Eitan Geva, Barry D. Dunietz, Xiang Sun, Margaret S. Cheung

Alice Troitskaia (Room F) "Sequence-dependent pausing of a DNA repair helicase"; Alice Troitskaia, Barbara Stekas, Maria Spies, Yann R. Chemla.

Clark Templeton (Room F)

A Simple Model to Explore Impacts of RNA Collapse

Kaustubh Wagh (Room F)

Actin dynamics and organization at the T cell immune synapse: The role of the signaling protein Bcl10; Kaustubh Wagh, Brittany A. Wheatley, Maria K. Traver, Imran Hussain, Brian C. Schaefer, Arpita Upadhyaya

Ushasi Roy (Room G) Effects of cell-cell adhesion on migration of multicellular clusters. Ushasi Roy and Andrew Mugler

Janaki Sheth (Room G) Violation of generalized fluctuation-dissipation theorem: Application fo hair cells

Chongzhi Zhang (Room G) Modeling intrinsic biases in high-throughput sequencing data for chromatin accessibility profiling

Anshul Singhvi (Room G) A biomimetic reaction-diffusion network simulates C. elegans motion. Anshul Singhvi, Harold Hastings, Jenny Magnes, Cheris Congo, Miranda Hulsey-Vincent, Rifah Tasnim, Naol Negassa

Qin Ni (Room H) Tensile Force-Induced Cytoskeletal Remodeling: Mechanics Before Chemistry.

Xiaona Lia*, Qin Nib*, Xiuxiu Hea, Jun Konga, Soon-Mi Limc&, Garegin A. Papoiand, Jerome P. Trzeciakowskic, Andreea Trachec,e and Yi Jianga

* Co-first author.

Clories Reinhardt (Room H) Conformational Motions and Water Networks at the Protein Interface in E. coli Ribonucleotide Reductase, Clorice R. Reinhardt, Pengfei Li, and Sharon Hammes-Schiffer

Ivan Rey-Suarez (Room H) Actomyosin Dynamics Modulate Microtubule Deformation And Growth During T Cell Activation, Authors: Ivan Rey-Suarez, Sarah Kerr, Kun Do, Hari Shroff, Arpita Upadhyaya

Haoran Ni (Room H) Mechanochemical Simulation of Integrated Membrane-Cytoskeleton System. Haoran Ni and Garegin A. Papoian

Erin McCaskey (Room I) Rice Root Tip Circumnutation Facilitates Exploratory Behavior MCCASKEY, EN (Georgia Institute of Technology); LEHNER, K (Duke University) ; TAYLOR, I (Duke University) ; BENFEY, PN (Duke University) ; GOLDMAN, DI (Georgia Institute of Technology)

Tyler Hatch (Room I) Nonlinear Time Series Analysis and Statistical Analysis of *C. elegans* Locomotion

Soutick Saha (Room I) Antagonism in multiple-cue chemotaxis in breast cancer cells. Authors : Soutick Saha, Hye-ran Moon, Bumsoo Han, Andrew Mugler

Baxi Chong (Room I) Turning behaviors of *C. elegans* locomotion.

Dilmini Wijesinghe (Room J) Analysis on Effects of Unequal Anisotropy Ratios in Cardiac Muscle. (Dilmini Wijesinghe and Bradley J. Roth)

Hao Wu (Room J)

Title: "Binding Dynamics of Disordered Linker Histone H1 with a Nucleosomal Particle"
Authors: Hao Wu (UMD), Yamini Dalal (NCI), and Garegin Papoian (UMD).

Kelimar Diaz (Room J) Gait coordination and hydrodynamic performance of a quadriflagellate robophysical model.

Susannah Zhang (Room J) Complex Locomotory Patterns in *C. elegans* by S. G. Zhang, J. Magnes, H. M. Hastings, A. Singhvi, K. M. Raley-Susman, M. Hulse-Vincent, and T. Hatch

Tuesday

Robert Austin (Room A) Bacterial Route-finding and Collective Escape in Mazes and Fractals

Mary Lou Bailey (Room A) Covariance Distributions in Single Particle Tracking. Mary Lou P. Bailey, Hao Yan, Ivan Surovtsev, Jessica Williams, Megan C. King, Simon G. J. Mochrie

Komal Bhattacharyya (Room A) Adaptive flow networks memorize changes in flow

Elise Bullock (Room A) Exploring Chromatin-mediated Regulation of Transcriptional Noise with Stochastic Models of HIV Gene Expression. Authors: Elise Bullock, Victor Bass, Victor Wong, Kathryn Miller-Jensen

Sean Carney (Room A) Title: "Direct Measurement of Stepping Dynamics of E. coli UvrD Helicase" Authors: Sean P. Carney (1), Kevin D. Whitley (1), Wen Ma (1), Haifeng Jia (2), Timothy M. Lohman (2), Zaida Luthey-Schulten (1), Yann R. Chemla (1), Institutions: 1 = University of Illinois Urbana-Champaign, 2 = Washington University St. Louis

Aravind Chandrasekaran (Room B) Computational study of Abl pathway based axonal guidance

Vinicius Contessoto (Room B) Exploring the Energy Landscape of Chromosomes: Transitions Between Interphase and Mitotic Phase; Vinícius G. Contessoto, Ryan R. Cheng, Michele Di Pierro, Peter G. Wolynes and José N. Onuchic

Yu Jing (Room B) Mechanobiology of the Glycocalyx: What Cell interactions with a Biomimetic Polymer Brush Can Teach Us. Yu Jing, Shlomi Cohen, Jessica Faubel, Wenbin Wei, Jennifer E Curtis

Esteban Doderio Rojas (Room B) Max-Entropy Model for Recursive Imputation of Epigenomic Data - Esteban Doderio Rojas, Vinicius Contessoto, Ryan Cheng, Michele Di Pierro, José N. Onuchic

Tom Day (Room B)
The Origin of Heritable Group-Level Properties in Early Multicellularity

Monica Makurath (Room C) PriC stabilizes binding of Rep to ssDNA during replication restart, Monika A. Makurath, Binh Nguyen, Timothy Lohman, Yann R. Chemla

Sangjin Kim (Room C)
Long-distance interactions between RNA polymerases via DNA supercoiling

Zhe Mei (Room C) Molecular dynamics simulations of folded proteins: Determining the properties of protein cores

Diana Valverde Mendez (Room C) 3D particle diffusion in Escherichia coli cells.

Dan Losowyj (Room C) Imaging of Microtubules to 3 nm: Unveiling Single Filament Mechanics in Cross-Linked Networks; Daniel Losowyj, Michael Himmelsbach, Ernst-Ludwig Florin

Mauro Mugnai (Room D) Title: "pH-Dependence of the Conformational Ensemble of Intrinsically Disordered Proteins: Predictions for Alpha-Synuclein"; Authors: Mauro L. Mugnai, Debayan Chakraborty; Abhinaw Kumar; D. Thirumalai

Matt Hourwitz (Room D) Using Three-Dimensional Nanotopographical Patterns to Study How the Cytoskeleton and Other Cellular Components Regulate Cell Migratory Behavior
Authors: Matt J. Hourwitz, Wolfgang Losert, and John T. Fourkas

Wen Jia (Room D) A possible role for epigenetic feedback regulation in the dynamics of the epithelial–mesenchymal transition (EMT) Authors: Wen Jia, Abhijeet Deshmukh, Sendurai A Mani, Mohit Kumar Jolly, Herbert Levine

Fangchen Liu (Room D) An array microhabitat platform for studying harmful algal bloom. Fangchen Liu (fl373@cornell.edu), Nicole D. Wagner, Mohammad Yazdani, Beum Jun Kim, Beth A. Ahner, and Mingming Wu