

Electrostatic Interactions in Polymers, Colloids, and Biophysics

May 11-13, 2001

Friday, May 11

Humphrey Room, Radisson Hotel Metrodome

- 8:15 - 9:00 a.m. Registration
- 9:00 - 9:40 a.m. Victor Bloomfield, University of Minnesota
"Themes in Electrostatics"
- 9:40 - 10:20 a.m. William Gelbart, University of California at Los Angeles
"DNA-DNA Interactions and Bacterial Infection by Phage"
- 10:20 - 11:00 a.m. Coffee Break
- 11:00 - 11:40 a.m. Cyrus Safinya, University of California at Santa Barbara
"Supramolecular Assembly in DNA and Cytoskeletal Filaments"
- 11:40 - 12:20 p.m. Michael Rubinstein, University of North Carolina
"Pearl-Necklace Story of Hydrophobic Polyelectrolytes"
- 12:20 - 2:00 p.m. Lunch, Nolte Room, Radisson Hotel Metrodome

Afternoon session

Humphrey Room, Radisson Hotel Metrodome

- 2:00 - 2:40 p.m. Boris Shklovskii, University of Minnesota
"Screening by Multivalent Counterions: Theory of Charge Inversion"
- 2:40 - 3:00 p.m. Roland Netz, Max Planck Institute
"From Poisson-Boltzmann to the Strong-Coupling Limit"
- 3:20 - 3:50 p.m. Coffee Break
- 3:50 - 4:30 p.m. Paul Janmey, University of Pennsylvania
"Polyelectrolytes in a Biological Context: Counterion Effects in Cystic Fibrosis Sputum and Neurofilament Bundles"
- 4:30 - 5:10 p.m. Jean-Louis Sikorav, Saclay
"Physical Chemistry of Condensed DNA"

Saturday, May 12

Humphrey Room, Radisson Hotel Metrodome

- 9:00 - 9:40 a.m. Paul Dubin, Indiana University-Purdue University, Indianapolis
“Microscopic and Macroscopic phase Changes in Systems of Polyelectrolytes Interacting with Oppositely Charged Micelles, Proteins and Dendrimers”
- 9:40 – 10:20 a.m. Toan Nguyen, University of Minnesota
“Complexes of Polyelectrolytes with Oppositely Charged Spheres”
- 10:20 - 11:00 a.m. Coffee Break
- 11:00 – 11:40 a.m. Jon Widom, Northwestern University
“Dynamics and Function of the Nucleosome”
- 11:40 - 12:20 p.m. Alexei Khokhlov, Moscow State University
“Associating Ionic Polymers: Phase Equilibria and Microstructure Formation”
- 12:20 – 2:00 p.m. Lunch, Nolte Room, Radisson Hotel Metrodome

Afternoon Session

Humphrey Room, Radisson Hotel Metrodome

- 2:00 - 2:40 p.m. Mehran Kardar, Massachusetts Institute of Technology
“Topological Constraints in Charged Polymers”
- 2:40 – 3:20 p.m. Eric Raspaud, University of Paris-Sud
“Salt Effect on Interactions between Nucleosomes”
- 3:20 - 3:50 p.m. Coffee Break
- 3:50 – 4:30 p.m. Philip Pincus, University of California at Santa Barbara
"Born Interaction Effects for Membranes"
- 4:30 - 5:10 p.m. Dave Thirumalai, University of Maryland
“Collapse Dynamics of Polyampholytes and Polyelectrolytes”
- 5:10 – 5:50 p.m. Uri Sivan, Technion, Israel
TBA

Sunday, May 13

Humphrey Room, Radisson Hotel Metrodome

- 8:30 - 9:10 a.m. Kurt Kremer, Max Planck Institute
"Polyelectrolyte Simulations"
- 9:10 – 9:50 a.m. Philip Nelson, University of Pennsylvania
"Charge-Reversal Instability in Mixed Bilayer Vesicles"
- 9:50 - 10:30 a.m. Maxim Frank-Kamenskii, Boston University
"PNA: A DNA Analogue with Neutral Backbone"
- 10:30 – 10:50 a.m. Coffee Break
- 10:50 - 11:30 a.m. Alexander Grosberg, University of Minnesota
"DNA Adsorption and Counterion Release"
- 11:30 - 12:10 p.m. Murugappan Muthukumar, University of Massachusetts
"DNA Translocation through Protein Channels"
- 12:10 - 12:50 p.m. Paul Chaikin, Princeton University
TBA