Diffusion Fundamentals IV August 21-24, 2011, Troy, NY

Preliminary Program

Sunday 21 August
3:15pm Welcome message

Opening Lecture
3:30pm James Wei, Princeton University (Chemical Engineering)

Session 1: Diffusion in the Brain
4:30pm Joseph Ackerman, Washington University in St. Louis (Biochemistry)
5:05pm Sabina Hrabetova, SUNY Downstate (Cell Biology)
5:40pm Session 1 close

6:00-8:00pm Welcome reception (Hilton Garden Inn)

Monday 22 August

[8:20-8:45am Possible introductions from RPI leadership; or on Sunday afternoon]

Session 2: Diffusion in Physiology and Medicine
8:45am James Baish, Bucknell University (Mechanical and Biomedical Engineering)
9:20am Peter Pfeifer, University of Missouri, Columbia (Physics)
10:05 Session 2 close

10:05-10:30am Coffee break

Session 3: Transport Phenomena in Nano-Biotechnology
10:30am Murugappan Muthukumar, UMass Amherst (Polymer Science and Engineering)
11:05am John Kasianowicz, NIST, Gaithersburg (Biophysics)
11:40am Session 3 close

11:40-2:10pm Lunch and posters - POSTER SESSION 1

Session 4: Membrane Diffusion Fundamentals - Experiments and Theory
2:10pm Georges Belfort, RPI (Chemical and Biological Engineering)
2:45pm Andrew Zydney, Penn State University (Chemical Engineering)
3:20pm Session 4 close

Session 5: Diffusion in Nanomaterials: Synthesis, Characterization and Applications, I
3:20pm Theo Tsotsis, University of Southern California (Chemical Engineering)
3:55pm Rustem Valiullin, Univ. Leipzig (Physics)
4:30pm Session 5 close
4:30-5:00pm *Tea break*

**Session 6: Theoretical Fundamentals of Confinement Effects on Diffusion, I**
5:00pm Tom Truskett, University of Texas at Austin (Chemical Engineering)
5:35pm Peter Monson, UMass Amherst (Chemical Engineering)
6:10pm Yunfeng Shi, RPI (Materials Science and Engineering)
6:45pm *Session 4 close*

7:00pm *Dinner – Event*

**Tuesday 23 August**

**Session 7: Diffusion in Nanomaterials: Synthesis, Characterization and Applications, II**
8:45am Bernhard Blümich, RWTH Aachen (Macromolecular Chemistry)
9:20am Don MacElroy, University College Dublin (Chemical Engineering)
9:55am Sergey Vasenkov, University of Florida (Chemical Engineering)
10:30am *Session 5 close*

10:30-11am *Coffee break*

**Session 8: Theoretical Fundamentals of Confinement Effects on Diffusion, II**
11:00am Pierre Levitz, Ecole Polytechnique, Paris (Physics)
11:35am Joel Plawsky, RPI (Chemical Engineering)
12:10pm Thomas Franosch, University of Erlangen-Nürnberg (Physics)
12:45pm *Session 6 close*

12:45-3:15pm *Lunch and posters  - POSTER SESSION 2*

3:15-9:00pm *Excursion, conference dinner*

**Wednesday morning 24 August**

**Session 9: Transport in the Geosciences**
8:45am Bruce Watson, RPI (Geosciences)
9:20am Jens Feder, University of Oslo, Norway (Geophysics)
9:55am Muhammad Sahimi, University of Southern California (Chemical Engineering)
10:30am *Session 8 close*

10:30-11:50am *Coffee break and posters  - POSTER SESSION 3*

11:50am *Closing lecture:* Frank Cichos (Physics, University of Leipzig), and introduction to Diffusion Fundamentals V
12:25pm Closing remarks
12:30pm *Conference close*
12:30pm Lunch