

NSF Workshop on Molecular Communication/ Biological Communications Technology

Dates: Wednesday & Thursday Feb. 20 & 21st 2008.

Location: Hilton Arlington, Arlington, VA.

DAY 1 (Wednesday Feb. 20th)

- 7:20 – 8:20 Registration and continental breakfast, *Masters Ballroom Pre-function Area*
- 8:20 – 9:00 Welcome and introductions, *Gallery 3*
- 8:20 – 8:25 Welcome remarks: Dr. Tadashi Nakano (University of California, Irvine)
- 8:25 – 8:35 Opening Talk (1): Dr. Jeannette Wing (NSF CISE/OAD)
- 8:35 – 8:45 Opening Talk (2): Dr. Michael Foster (NSF CCF)
- 8:45 – 9:00 Introduction to the workshop: Dr. Tadashi Nakano
- 9:00 – 12:00 State-of-the-art specialist presentations, *Gallery 3*
- 9:00 – 9:30 “System Components”
Dr. Aristides Requicha (University of Southern California)
- 9:30 – 10:00 “TBA”
Dr. Michael L. Simpson (Oak Ridge National Laboratory)
- 10:00 – 10:30 Coffee break, *Masters Ballroom Pre-function Area*
- 10:30 – 11:10 “Shannon’s Channel Capacity Theorem: is it about Biology?”
Dr. Thomas Schneider (National Institutes of Health)
Dr. Christopher Rose (Rutgers University)
- 11:10 – 11:40 “Novel Computing Paradigms: Challenges and Opportunities”
Dr. Christof Teuscher (Los Alamos National Laboratory)
- 11:40 – 12:10 “TBA”
Dr. Lingchong You (Duke University)
- 12:10 – 12:15 “Molecular Communication Research”
Dr. Tadashi Nakano (University of California, Irvine)
- 12:15 – 13:15 Lunch buffet, *restaurant within the Hilton Arlington*
- 13:30 – 17:00 Breakout sessions to discuss grand research challenges (by topics)
- “System Components” (Chair: Dr. Aristides Requicha), *Picasso*
- “TBA” (Chair: Dr. Michael L. Simpson), *Da Vinci*
- “Coding theory and channel capacity in biology” (Chair: Dr. Thomas Schneider), *Matisse*
- “Novel Computing Machines and Paradigms” (Chair: Dr. Christof Teuscher), *Rembrandt*
- “TBA” (Chair: Dr. Lingchong You), *Renoir*
- (15:00 – 15:30 Coffee break, *Masters Ballroom Pre-function Area*)

- 17:00 – 18:00 Summary of Day 1 discussions, *Gallery 3*
Brief report from each session (10 minute presentation from each session)
- 18:30 – 20:00 Dinner, *Gallery 2*
- 20:00 – 22:00 Breakout sessions (Optional), same rooms are available ~ 22:00.

DAY 2 (Thursday Feb. 21st)

- 8:00 – 9:00 Continental breakfast, *Masters Ballroom Pre-function Area*
- 9:00 – 9:15 Day 2 scheduling, *Masters Ballroom*
- 9:15 – 12:00 Discussions on grand research challenges by topics (cont'd from Day 1)
(10:00 – 10:30 Coffee break, *Masters Ballroom Pre-function Area*)
- 12:00 – 13:00 Lunch buffet, *restaurant within the Hilton Arlington*
(Including session chair meeting on grand research challenges ~13:30)
- 13:00 – 13:30 Break (preparation for final presentations)
- 13:30 – 15:30 Presentations on grand research challenges (by topics), *Masters Ballroom*
- 13:30 – 13:50 “System Components”
 - 13:50 – 14:10 “TBA”
 - 14:10 – 14:30 “Coding theory and channel capacity in biology”
 - 14:30 – 14:50 “Novel Computing Machines and Paradigms”
 - 14:50 – 15:10 “TBA”
- 15:30 – 16:00 Coffee break, *Masters Ballroom Pre-function Area*
- 16:00 – 17:00 Closing Session, *Masters Ballroom*
- 17:30 – 18:30 Session chair meeting (session chairs only to discuss workshop report), *Renoir*

Floor plan (Hilton Arlington)

General session

- Day 1: *Gallery III*
- Day 2: *Masters Ball Room (Picasso, DaVinci, Matisse combined)*

Breakout sessions

- S1: System Components (chaired by Dr. Aristides Requicha) → *Picasso*
S2: Title TBA (chaired by Dr. Michael Simpson) → *DaVinci*
S3: Coding theory and channel capacity in (chaired by Dr. Thomas Schneider) → *Matisse*
S4: Novel Computing Machines and Paradigms biology (chaired by Dr. Christof Teuscher) → *Rembrandt*
S5: Title TBA (chaired by Dr. Lingchong You) → *Renoir*

Audio/visual setup

- *Gallery III*: projector, screen, microphone
- *Picasso/DaVinci/Matisse/Rembrandt*: 32 inch LCD monitor
- *Renoir*: projector and screen

