“From Molecules to Manufacturing”

FINAL PROGRAM
Holtzman Alumni Center at Virginia Tech

MONDAY, April 16, 2018

10:00 AM–1:00 PM  Conference Check-In

SESSION I:  Polymer Processing and Advanced Manufacturing
Session Chair: Prof. Don Baird (Chemical Engineering)
1:00 PM–1:05 PM  Introductory Remarks – Prof. Timothy E. Long, Director, MII
1:05 PM–1:10 PM  Welcome to Virginia Tech – Dr. Stefan M. Duma, Director of ICTAS
1:10 PM–1:30 PM  MII – Year in review – Prof. Timothy E. Long, Director, MII
1:30 PM–1:50 PM  Presentation of Garth L. Wilkes Interdisciplinary Scholar Awards to Prof. Robert B. Moore, Chemistry and Mr. Jake Fallon, graduate student for Prof. Michael Bortner, Chemical Engineering – Prof. Timothy E. Long, Director, MII and Prof. Christopher B. Williams, Assoc. Director, MII
1:50 PM–2:10 PM  Prof. Michael J. Bortner (Chemical Engineering)
2:10 PM–2:15 PM  Introduction of Dr. Nancy Zhang, Carbon3D – Prof. Timothy E. Long, Director, MII
2:15 PM–2:55 PM  Plenary Lecture: [TBA], Dr. Nancy Zhang (Research Scientist; Carbon3D)
2:55 PM–3:05 PM  Break
3:05 PM–3:30 PM  Prof. Christopher B. Williams (Mechanical Engineering)
3:30 PM–3:55 PM  Prof. Carolina Tallon (Materials Science and Engineering)
3:55 PM–4:20 PM  Prof. Xiaoyu Rayne Zheng (Mechanical Engineering)
4:20 PM–4:45 PM  Prof. Don Baird (Chemical Engineering)
5:30 PM–7:00 PM  Poster / Reception / Best Poster Prizes (Latham Ballroom – AB) – (Dinner on your own) – Reception and Poster Prizes sponsored by The Dow Chemical Company

TUESDAY, April 17, 2018

7:00 AM–8:00 AM  Conference Check-In (Breakfast on your own)
8:00 AM–9:00 AM  Tour of the Institute for Critical Technology and Applied Science II, Macromolecular Materials Discovery Center (MMDC), and the DREAMS Additive Manufacturing Facilities, Goodwin Hall, (Profs. Timothy E. Long, Christopher Williams, and Robert B. Moore)

SESSION II:  Stimuli-Responsive Polymers: Designing Functional Polymers
Session Chair: Prof. John B. Matson (Chemistry)
9:15 AM–9:20 AM  Introductory Remarks – Prof. Harry Gibson (Chemistry)
9:20 AM–9:45 AM  Prof. Timothy E. Long (MII)
9:45 AM–10:10 AM  Prof. John B. Matson (Chemistry)
10:10 AM–10:35 AM  Prof. Harry Gibson (Chemistry)
10:35 AM–10:45 AM  Break
10:45 AM–11:10 AM  Prof. Kevin J. Edgar (Sustainable Biomaterials)
11:10 AM–11:15 AM  Introduction of Dr. Bradley Lokitz (Oak Ridge National Laboratory) – Mr. Mingtao Chen (Chemistry Student)
11:15 AM–11:55 AM  Plenary Lecture: [TBA], Dr. Bradley Lokitz (Research Scientist; Center for Nanophase Materials Science, Oak Ridge National Laboratory)
11:55 AM–2:00 PM  Lunch (on your own)
SESSION III:  Polymer Structure – Property Relationships
Session Chair: Prof. Christopher B. Williams (Mechanical Engineering)
2:00 PM–2:05 PM Introductory Remarks – Prof. David A. Dillard (Biomedical Engineering and Mechanics)
2:05 PM–2:30 PM “Block Copolymer Based Porous Carbon Fibers,” Prof. Guoliang Liu (Chemistry)
2:30 PM–2:55 PM Prof. Johan Foster (Materials Science and Engineering)
2:55 PM–3:05 PM Break
3:05 PM–3:10 PM Introductory Remarks – Prof. David A. Dillard (Biomedical Engineering and Mechanics)
3:10 PM–3:50 PM Plenary Lecture: [TBA], Dr. Sudhin Datta (Sr. Research Scientist; ExxonMobil Chemical)
3:50 PM–4:15 PM Prof. Steve Martin (Chemical Engineering)
4:15 PM–4:40 PM Mr. Camden A. Chatham (Macromolecular Science & Engineering Student)
4:40 PM–5:05 PM Prof. David A. Dillard (Biomedical Engineering and Mechanics)
5:05 PM–5:30 PM Prof. Zhiting Tian (Mechanical Engineering)
5:30 PM–7:00 PM Poster / Reception / Best Poster Prizes (Latham Ballroom – AB)
7:00 PM–9:00 PM Conference Banquet (Latham Ballroom – AB) – Guest Speaker: TBA

WEDNESDAY, April 18, 2018

SESSION IV:  Design and Computational Modeling of Complex Polymer Systems
Session Chair: Prof. [TBA]
8:00 AM–8:05 AM Introductory Remarks – Prof. [TBA]
8:05 AM–8:30 AM Prof. Michael Schulz
8:30 AM–8:55 AM Mr. Justin M. Sirrine (Macromolecular Science & Engineering Student)
9:20 AM–9:45 AM Prof. Romesh Batra (Biomedical Engineering and Mechanics)
9:45 AM–9:55 AM Break
9:55 AM–10:20 AM Prof. Jonathan Boreyko (Biomedical Engineering and Mechanics)
10:20 AM–10:45 AM Prof. Shengfeng Cheng (Physics)
10:45 AM–10:50 AM Introduction of Dr. Christopher Bowman (University of Colorado Boulder) – Prof. Timothy E. Long, Director, MII
10:50 AM–11:30 AM Plenary Lecture: [TBA], Dr. Christopher Bowman (Clinical Professor of Restorative Dentistry; Chemical and Biological Engineering, University of Colorado Boulder)
12:00 PM–1:30 PM Lunch (on your own)
12:00 PM–1:30 PM MII External Advisory Board Meeting (lunch will be provided for Advisory Board – Preston’s)

SESSION V:  Advances in Self-Assembly, Morphology, and Visualization
Session Chair: Prof. Robert B. Moore (Chemistry)
1:30 PM–1:35 PM Introduction of Dr. Samuel Stupp (Northwestern University) – Prof. John B. Matson (Chemistry)
1:35 PM–2:15 PM Plenary Lecture: [TBA], Dr. Samuel Stupp (Board of Trustees Professor of Materials Science, Chemistry, Medicine, and Biomedical Engineering; Northwestern University)
2:15 PM–2:40 PM Prof. Robert B. Moore (Chemistry)
2:40 PM–3:05 PM Prof. Deborah Kelly (VTCRI)
3:05 PM–3:30 PM TBA
3:30 PM–3:55 PM Prof. Rana Ashkar (Physics)
3:55 PM–4:20 PM Prof. Louis A. Madsen (Chemistry)
4:20 PM–4:30 PM Concluding Remarks – Prof. Timothy E. Long (MII/Chemistry)