NSF EPSCoR Research Infrastructure Improvement (RII) Award

The 4th CIMM Technical Conference

March 15, 2019

Frank Walk Room, Engineering Annex, LSU Campus

Baton Rouge, Louisiana 70802

Agenda

7:00 – 8:00	Registration
8:00 – 8:15	**Welcoming Remarks (Michael Khonsari)**
Multiscale metal forming and pattern replication (STT1): Chair: Wen J. Meng	
8:15 – 8:30 8:30 – 8:35	**Xiaoman Zhang (LSU),** Microscale mechanical testing of ceramic/metal interfaces and growth of epitaxial ceramic and ceramic/metal thin films Q&A
8:35 – 8:50 8:50 – 8:55	**Bin Zhang (LSU),** Feature interaction in pattern replication by molding and (attempts to) measure stiction/friction in microscale metal forming Q&A
8:55 – 9:10 9:10 – 9:15	**Shuai Shao (LSU),** Continuum/grain level finite element simulations and Molecular Dynamics simulations of energetics and mechanical response of terraced interfaces Q&A
9:15 – 9:30 9:30 – 9:35	**Collin Wick (LaTech),** Computational engineering of metal/ceramic interfaces Q&A
9:35 – 9:50 9:50 – 9:55	**Arden Moore (LaTech),** Scalable surface engineering and manufacturing for two-phase immersion cooling applications Q&A
9:55 – 10:10	**Break**
Laser based metal 3D printing (STT2): Chair: Shengmin Guo	
10:10 – 10:25 10:25 – 10:30	**Louis Haber (LSU),** Ultrafast Microscopy and Reflectivity of Laser Heating and Melting Dynamics Q&A
10:30 – 10:45 10:45 – 10:50	**Ali Hemmasian Ettefagh (LSU),** Corrosion behavior of additively manufactured parts made from Ti64 and SS316 Q&A
10:50 – 11:05 11:05 – 11:10	**Uttam K Chakravarty (UNO),** A Comparative Study Between Selective Laser Melting and Electron Beam Additive Manufacturing based On Melt Pool Dynamics Q&A
11:10 – 11:25 11:25 – 11:30	**Congyuan Zeng, Bin Zhang, and Hao Wen (LSU),** Thermal and Mechanical Properties of Cu-10Sn Alloy Prepared by Selective Laser Melting Q&A
11:30 – 11:45 11:45 – 11:50	**Yaser Banadaki (SUBR),** Enabling smart additive manufacturing using machine learning algorithm Q&A

11:50 – 1:00	**Lunch –Students & postdocs should get together and start planning the Summer Retreat** **Leaders: Ka Ming Tam (LSU), Maddie Kumara (LaTech), Shafiqur Rahman (UNO)**
1:00 – 1:30	**Lunch speaker: Mark Cantrell, Lockheed Martin,** Friction Stir Welding
Project Elements: Chair: Ramu Ramachandran	
1:30 – 2:30	***2018 Seed Grant Awardees Presentations: (15 min each + 5 min Q&A)*** • ***Andrew Peters (LaTech)* -** Nanoscale Arrangement of Metal Nanoparticles via Grafted Block Copolymers for Improved Manufacturing Materials • ***Gabriela Petculescu (ULL)* -** Ultrasonic-based characterization and model validation of 3D-printed metals • ***Amanda Reusch (Tulane)* -** Nanoparticle Inoculants in Aluminum Alloy Powder Feedstocks for Laser-Based 3D Printing (Seed grant PI: Brian Mitchell)
2:30 – 2:50 2:50 – 3:00	**Heather Lavender,** Project Elements update **Leland Weiss or Dimitris Nikitopoulos,** Update on CUF
3:00 – 3:15	**Break**
3:15 – 3:45	*Year 4 milestones and deliverables, RSV and Site Visit recommendations, and* *Process for assembling Y4 report:* **Wen J Meng, Shengmin Guo, Heather Lavender**
3:45 – 3:55	*CIMM Sustainability, report on IUCRC effort* - **Mike Khonsari, Greg Trahan**
3:55 – 4:00	*Concluding remarks:* **Michael Khonsari**

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