Preliminary Schedule for 2018 3D Workshop at CMU

Day 1, Monday July 9, 2018

08:00 – 08:45  Registration

08:45 – 09:00  Marc De Graef  [Carnegie Mellon University]
Introductions and overview of the workshop

09:00 – 10:00  Michael Uchic  [Air Force Research Laboratory]
Keynote Lecture: Progress towards 3D Microstructure Information Systems

10:00 – 10:30  Sean Donegan  [Air Force Research Laboratory]
DREAM.3D Overview

10:30–10:45  Break

10:45 –11:30  Ashwin Shahani  [University of Michigan]
Integrated Imaging in Three Dimensions: Linking Absorption and Diffraction X-ray Tomography in the Lab

11:30 – 12:15  Bob Suter  [Carnegie Mellon University]
Non-destructive 3D microstructure studies with High Energy X-ray Diffraction Microscopy (HEDM)

12:15 – 1:30  Lunch Break (boxed lunches provided)

1:00 – 1:30  Adam Wise and Betsy Clark
Tour of Materials Characterization Facility (optional)

1:30 – 3:30  Sean Donegan  [Air Force Research Laboratory]
Hands-On: 3D Image Processing

3:30 – 3:45  Break

3:45 – 4:30  Marc De Graef  [Carnegie Mellon University]
A dictionary approach to EBSD indexing

Measuring changes in grain shapes and sizes during grain growth

5:30 – 7:30  Refreshments provided on the MSE deck (Wean Hall, 3rd floor)
Day 2, Tuesday July 10, 2018

8:30 – 9:15 Anthony Rollett [Carnegie Mellon University]  
An Update on Full Field Crystal Plasticity Simulations Applied to Measured 3D Microstructures

9:15 – 10:00 Mike Jackson [BlueQuartz Software]  
DREAM.3D road map: things on the horizon

10:00 – 10:15 Break

10:15 – 12:00 Sean Donegan [Air Force Research Laboratory]  
Hands-On: 3D EBSD & Crystallography

12:00 – 1:30 Lunch Break (boxed lunches provided)

1:30 – 2:15 Sean Donegan [Air Force Research Laboratory]  
Hands-On: EBSD/crystallography track

2:15 – 3:00 Paul Salvador [Carnegie Mellon University]  
3D Mesoscale Heterogeneities in Electrodes of Solid Oxide Fuel Cells: Experimental Characterization, Modeling with Synthetic Microstructures, and Simulations of Activity

3:00 – 3:15 Break

3:15 – 5:00 Sean Donegan [Air Force Research Laboratory]  
Hands-On: Understanding Synthetic Building

6:00 – 8:00 Optional no-host dinner at the Porch

Day 3, Wednesday July 11, 2018

8:30 – 10:00 Sean Donegan [Air Force Research Laboratory]  
Hands-On: Building Synthetic Microstructures

10:00 – 10:15 Break

10:15 – 11:45 Sean Donegan [Air Force Research Laboratory]  
Hands-On: Advanced Topics in DREAM.3D - Registration, Fusion, & Analytics

11:45 – 12:00 Closing Remarks

Throughout Days 2 and 3:
Individualized 2-hour time slots for experienced C++ programmers to interact with BQ staff members; sign up sheets posted in conference room; meeting spots will be made available as needed.