**Agenda**

**Day 1, Monday, July 17, 2017**

08:45 – 09:00
Greg Rohrer Carnegie Mellon University
Introductions and overview of the workshop

09:00 – 10:00
Nikhilesh Chawla Arizona State University
Keynote Lecture: Imaging Materials in 3D

10:00 – 10:30
Sean Donegan Air Force Research Laboratory
Overview of Dream.3D

10:30 – 10:45
Break

10:45 – 11:30
Bob Suter Carnegie Mellon University
Non-destructive 3D microstructure studies with HEDM

11:30 – 12:15
Marc De Graef Carnegie Mellon University
Dictionary Approach to EBSD imaging

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

1:00 – 1:30
Tom Nuhfer Carnegie Mellon University
Tour of Microscopy Lab (optional)

1:30 – 2:30
Sean Donegan Carnegie Mellon University
Analysis of serial section data using DREAM.3D

2:30 – 3:30
Sean Donegan Air Force Research Laboratory
Generating 3D microstructures with DREAM.3D

3:30 – 3:45
Break

3:45 – 4:15
Greg Rohrer Carnegie Mellon University
Measuring grain boundary populations, energies, and curvatures

4:15 – 5:15
Sean Donegan Air Force Research Laboratory
Meshing & Smoothing microstructures using DREAM.3D

5:15 – 7:00
All Refreshments provided on the MSE Deck

**Note for day 1.** For those planning to participate in the tutorial for plugin development on Day 2, it is recommended that you set up the development environment on your computer in advance. A representative of BlueQuartz Software will be available throughout Day 1 to assist with this. If you prefer to begin this prior to the workshop, contact Mike Jackson at mike.jackson@bluequartz.net.
**Note for Day 2:** Day 2 will begin with a joint session, then split to two parallel sessions, A and B, and close with a joint session. Session A will focus and the analysis of 3D data. You may use your own data, or we will provide a 3D data set for you to study. Session B will focus on the development of plugins for DREAM.3D. During the closing session, participants are invited to present their completed analysis, the plugin they have developed, or planned 3D studies.

**Day 2, Section A. Tuesday, July 18, 2017**

**Joint Session**

8:30 – 9:10  
Tony Rollett  
Carnegie Mellon University  
Textures in 3D

**Session A – 3D Data analysis**

9:10 – 9:50  
William Epting  
National Energy Technology Laboratory  
Using Dream.3D to create virtual microstructures

9:50 – 10:30  
David Rowenhorst  
Naval Research Laboratory  
Aligning parallel orientation maps and removing spatial distortions

10:30 – 10:45  
Break

10:45 – 12:15  
Sean Donegan  
Air Force Research Laboratory  
Data Analysis

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

1:00 – 3:00  
Sean Donegan  
Air Force Research Laboratory

3:00 – 3:15  
Break

3:15 – 5:00  
Sean Donegan  
Air Force Research Laboratory

**Session B – Plugin Development**

9:10 – 10:30  
Mike Jackson  
BlueQuartz Software  
Plugin development

10:30 – 10:45  
Break

10:45 – 12:15  
Mike Jackson  
BlueQuartz Software  
Plugin development

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

1:00 – 3:00  
Mike Jackson  
BlueQuartz Software  
Plugin development

3:00 – 3:15  
Break

3:15 – 5:00  
Mike Jackson  
BlueQuartz Software  
Plugin development

**Joint sessions**

5:00 – 6:00  
All  
Closing session

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