

CHiMaD Phase Field Methods XII

CHiMaD Workshop Series

REGISTER

November 2 - 4, 2021 | In person (CHiMaD HQ, Evanston, IL) & Virtual

Organizers

Olle Heinonen (ANL) . James Warren (NIST) . Peter Voorhees (NU) . Jon Guyer (NIST) . Begum Gulsoy (NU)

Central Time

November 2, 2021 - Afternoon

1:30PM

Welcome -
Goals of the Workshop & Current Status: Benchmark Problems, PF Hub
Olle Heinonen (ANL)

1:45PM

Current Benchmark Problems, Traffic to PFhub
Olle Heinonen (ANL) & Daniel Wheeler (NIST)
Discussion Points:
- Downselect discussion / suggestions
- What Constitutes a Gold Standard?
- How should a Gold Standard be Presented?
- Possible (better) integration with database?

3:15PM

Adjourn

Central Time

November 3, 2021 - Morning

9:00AM

Presentations by Graduate Students and Postdocs:
Jin Zhang (Northwestern) - Phase Field Modeling of Li Dendrite
William Beck Andrews (U of Freiburg) - Crack Paths in Elastically Heterogeneous Materials via Phase Field Fracture
Dharma Raj Basula (U of Connecticut) - Modeling Thermoelectric Phenomena In Simple and Complex Material with FEM
Adrian Boccardo (NUI Galway) - Resolution of Phase-Field Models By Means of FFT and GPU
Whitney Tso (Northwestern U) - Machine Learning Aided Exploration Of Phase-field Sensitivity Analysis
Jose Mancias (Texas A&M) - A Julia GPU Parallelized Implementation of the Nucleation Benchmark

10:30AM

New Potential Benchmark Problem
Olle Heinonen (ANL)

11:15AM

Discussion: Future Directions
PF Community

Virtual Break & In-person lunch & networking

November 3, 2021 - Afternoon

2:30PM

Phase Field Best Practices, presentation & discussion
Michael Tonks (U of Florida)

Open-ended

Adjourn

Central Time

November 4, 2021 - Morning

9:00AM

Grain Boundary Segregation and Microstructural Evolution
Fadi Abdeljawad (Clemson U)

10:00AM

Atomistically-Informed Multiscale Modeling
Ellad Tadmor (U of Minnesota)

11:00AM

Wrap-up Discussions & Future Actions
PF Community

Open-ended

Adjourn

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