

BETHE Kickoff Workshop Introduction

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BETHE program team



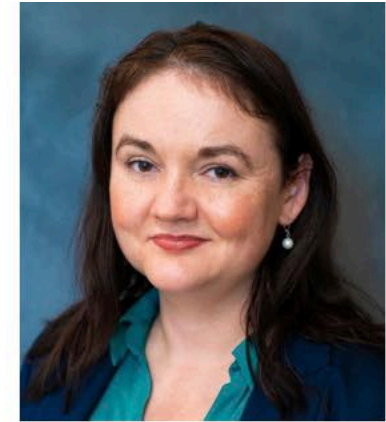
Scott Hsu,
Program Director



Malcolm Handley,
T2M consultant



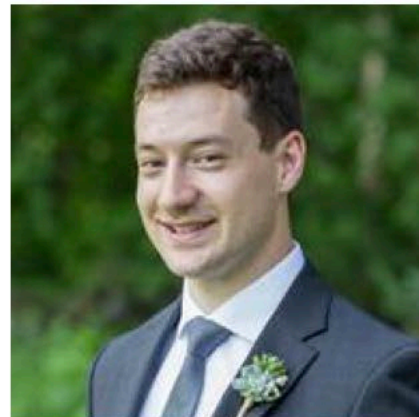
Robert Ledoux,
Program Director



Colleen Nehl,
Tech SETA



Zia Rahman,
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Curt Nehr Korn,
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Gideon Bass,
Tech SETA



Ahmed Skalić,
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Workshop objectives

- ▶ Reminder of BETHE program objectives
- ▶ Introduction to the BETHE project portfolio
- ▶ BETHE T2M: smoothing the path to commercial fusion energy

250+ workshop invitees

- ▶ ARPA-E fusion performers (past and present)
- ▶ Leaders from the fusion R&D community (both public and private)
- ▶ Energy investors
- ▶ NGOs
- ▶ Utilities
- ▶ Other interested observers
- ▶ Government (DOE, NRC)

Roster will be sent to all registered attendees, including names and contact information for those who gave permission to be included.

BETHE program objectives

Increase the number of lower-cost, higher-maturity fusion concepts with an eye toward market-competitive capital cost (FOA metric of \$2B OCC and \$5/W) through three technical research categories:

- ▶ Category A: advance the performance of lower-maturity fusion concepts
- ▶ Category B: develop component technologies that can lower the cost of higher-maturity fusion concepts
- ▶ Category C: “capability teams” in theory/modeling and diagnostics to accelerate the advancement of multiple concepts

Build a foundation for sustained public-private-philanthropic partnerships

BETHE projects

Category A: Concept development

Category B: Component technology development

Category C: Capability teams

University of Wisconsin-Madison	Commonwealth Fusion Systems*	Virginia Tech
Zap Energy, Inc.	Princeton Plasma Physics Laboratory*	Sapientai, LLC
University of Maryland, Baltimore County	Type One Energy	University of Rochester/LLE
NK Labs, LLC	University of Rochester/LLE*	Massachusetts Institute of Technology
University of Washington	Naval Research Laboratory*	Los Alamos National Laboratory
Los Alamos National Laboratory	University of Rochester/LLE*	Oak Ridge National Laboratory

Prime recipients: 6 universities, 5 private companies, 7 national labs (including LLE/IFE)

BETHE Tech-2-market (T2M): smoothing the path to commercial fusion energy

- ▶ Investor engagement
- ▶ Fusion first markets
- ▶ Fusion reactor costing
- ▶ Public acceptance



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