



**August 18<sup>th</sup>, 2022**

All times are in Eastern Daylight Time  
 Symposium Moderator: Jennifer Burnette, Project Manager, Oak Ridge Institute for Science and Education

**Welcome and What’s Happening with AMO** 10:00AM

Anne Hampson, Technical Partnerships Program Manager, [Department of Energy - Advanced Manufacturing Office](#)

**Overview and Schedule of Events** 10:30AM

Dr. Rachel Hill, Associate Manager, [Oak Ridge Institute for Science and Education \(ORISE\)](#)

**Research Presentations** 11:00AM

- Infinitely Recyclable Thermoset Polymers***
- Dr. Peter Christensen, [Lab Embedded Entrepreneurship Program, Cyclotron Road](#), Lawrence Berkeley National Laboratory
- A Novel Hydrogen Fluid: Packing Clean Energy into Oil Pipelines and Heavy Fuel Oils***
- Dr. Nathan Prisco, [Arctic Advanced Manufacturing Innovators Program](#), Pacific Northwest National Laboratory
- Remote Motion control of six-axis robots for Advanced Photon Source Beamline Operations***
- Alex Singer, [EERE Robotics Summer Internship Program](#), Argonne National Laboratory

***Augmented Reality Teleoperation of Hot Cell Dual-Arm Robots using HoloLens***

- Frank Regal, [EERE Robotics Summer Internship Program](#), Argonne National Laboratory

**Laboratory Spotlight**

12:45PM

***Next-Generation Pathing and Visualization for Industrial Additive Manufacturing***

- Dr. Michael Borish, Associate Researcher, [Oak Ridge National Laboratory, Manufacturing Demonstration Facility](#)

**Ignite Talks**

1:30PM

This session will feature talks from [AMO Summer Internships](#) participants, including EERE Energy Storage Internship Program, EERE High Performance Computing for Manufacturing Internship Program, and EERE Robotics Internship Program.

**Program Spotlight**

2:00PM

**[Lab-Embedded Entrepreneurship Programs \(LEEP\)](#)**

- Dr. Rachel Hill, Associate, Oak Ridge Institute for Science and Education

**[Innovation Crossroads](#): An early-stage entrepreneurial fellowship program at Oak Ridge National Laboratory**

- Dan W. Miller, Manager, Industrial Partners and Economic Development, Oak Ridge National Laboratory

**Research Presentations & Ignite Talks**

3:00PM

***Development of a Bilateral Telerobotic Control Method based on Tactile Feedback***

- Tommy Le, [EERE Robotics Summer Internship Program](#), Argonne National Laboratory

***Accessing and Using Environmental Thermal Energy***

- Dr. Sanza Kazadi, [Lab Embedded Entrepreneurship Program, Chain Reaction Innovations](#), Argonne National Laboratory

***Augmented Reality Teleoperation of Hot Cell Dual-Arm Robots using HoloLens***

- Kevin Menear, [EERE High Performance Computing for Manufacturing Program](#), National Renewable Energy Laboratory

### *AMO Summer Internship Ignite Talks*

#### Laboratory Spotlight

4:30PM

### *Towards defect free laser additive manufacturing using high-speed X-ray characterization*

- Dr. Samuel Clark, Assistant Physicist, Argonne National Laboratory

#### Ignite Talks

5:15PM

This session will feature talks from [AMO Summer Internships](#) participants, including EERE Energy Storage Internship Program, EERE High Performance Computing for Manufacturing Internship Program, and EERE Robotics Internship Program.

#### Closing Remarks

5:45PM

## August 19<sup>th</sup>, 2022

All times are in Eastern Daylight Time

Symposium Moderator: Jennifer Burnette, Project Manager, Oak Ridge Institute for Science and Education

#### Welcome Back

#### Participant to Career: ORISE Participant & Alumni Panel

10:00AM

### **Moderator**

- Anne Hampson, Alumni and Technical Partnerships Program Manager, [Department of Energy - Advanced Manufacturing Office](#)

### **Panelists**

- Dr. Dick Co, Director, [LEEP Chain Reaction Innovations](#), Argonne National Laboratory
- Dr. Kimmie Tran, Fellow, [EERE Science, Technology and Policy Program](#), Department of Energy, Advanced Manufacturing Office
- Dr. Nathan Prisco, Fellow, [Arctic Advanced Manufacturing Innovators Program](#), Pacific Northwest National Laboratory

## **Research Presentations and Ignite Talks**

11:00AM

### ***Multi-Phase Modeling of Blown Powder Additive Manufacturing Process with Refractory Materials for Critical Applications***

- Alexander Summers, [EERE High Performance Computing for Manufacturing Program](#), Oak Ridge National Laboratory

### ***RenewCO2: Converting CO2 emissions into monomers***

- Dr. Karin Calvinho, [Lab Embedded Entrepreneurship Program, Chain Reaction Innovations](#), Argonne National Laboratory

## **The ORISE Experience**

12:00PM

This session will feature an overview of the Oak Ridge Institute for Science and Education (ORISE), including the unique experiences opportunities offered to ORISE participants in professional development and more.

## **Research Presentations**

1:00PM

### ***The Application of Machine Learning with Mixed Reality in Robotics for Experimental Automation***

- Michelle Lorini, EERE Robotics Internship Program, Argonne National Laboratory

### ***Synthesis and characterization of carbonaceous and cementitious phase change thermal energy storage composites***

- Isabel Davidoff, EERE Energy Storage Internship Program, National Renewable Energy Laboratory

## **Ignite Talks**

1:45PM

This session will feature talks from [AMO Summer Internships](#) participants, including EERE Energy Storage Internship Program, EERE High Performance Computing for Manufacturing Internship Program, and EERE Robotics Internship Program.

## Program Spotlight

2:00PM

### *Energy Efficiency & Renewable Energy (EERE) Science, Technology and Policy Program (STP) Overview*

- Dr. Rachel Hill, Associate Manager, Oak Ridge Institute for Science and Education

### *An EERE STP Fellow Experience with the Advanced Manufacturing Office*

- Steve Shooter, Fellow, EERE Science, Technology and Policy Program at Department of Energy, Advanced Manufacturing Office

## Closing Remarks

2:45PM