

UConn-LANL Collaboration Workshop
Catalyzing Collaboration: Shaping the Future Together

November 18-19, 2024

Innovation Partnership Building
159 Discovery Drive, Storrs, CT 06269

Agenda

Monday November 18

8:00 am **Continental Breakfast**
Room 317

SESSION I – Welcome Remarks
Room 317

8:30 am **Lindsay DiStefano** - Welcome
Pamir Alpay – UConn overview
David Clark – LANL overview
Manos Anagnostou, Alexander Balatsky – Goals of workshop

SESSION II Materials and Advanced Manufacturing
Room 317

9:00 am **John Bernardin**, LANL, “Developments in Advanced Design and Manufacturing at Los Alamos National Laboratory”

9:30 am **Amy Clarke**, LANL, “Science-based Advanced Manufacturing of Metals and Alloys”

9:50 am **Amber Black**, LANL, “Advancing Manufacturing Through Research at Sigma Division”

10:10 am *Coffee/Beverages Break*

10:30 am **Rainer Hebert**, UConn, “Materials and Processing Research for Extreme Conditions”

11:00 am **Mark Aindow**, UConn “Assessment of Novel Alloys for Metal Additive Manufacturing”

11:20 am **Lesley Frame**, UConn, “Ni Super Alloy Material Challenges in Electron Beam Welding”

11:40 am **SeungYeon Kang**, UConn, “Advancing High-Resolution Additive Manufacturing: From Digital Light Processing to Ultrafast Laser Techniques”

12:00 pm *Lunch*
Rear Lobby

SESSION III Quantum Technologies
Room 317

1:00 pm **Candace Culhane**, LANL, “Quantum Science at Los Alamos National Laboratory”

1:30 pm **Nick Dallmann**, LANL, "Future Quantum Optics at Los Alamos: Sensing, Computing, and Communications"

1:50 pm **Filip Ronning**, LANL, “Discovering, Understanding and Controlling Quantum Materials”

2:10 pm *Break*

2:30 pm **Pamir Alpay**, UConn, QuantumCT – “A Regional Socio-Economic Development Engine”

3:00 pm **Ilya Sochinkov**, UConn, “Quantum Sensing of Quantum Materials”

3:20 pm **Carlos Trallero**, UConn, “Non-linear optics and control of excitonic states”

3:40 pm **Bing Wang and Sanguthevar Rajasekaran**, UConn, “Distributed Quantum Computing: Algorithms and Optimization”

4:00 pm **Abhijit (Jit) Banerjee**, UConn, Technology Commercialization Services overview

4:10 pm Day 1 Concluding Remarks
Pamir Alpay, Manos Anagnostou, Alexander Balatsky, David Clark

4:30 pm Adjourn

4:30 pm Networking break
Room 317

5:30 pm Reception
Rear Lobby

Tuesday November 19

8:00 am **Continental Breakfast**
[Room 317](#)

SESSION IV Materials under Extreme/Dynamic Conditions
[Room 317](#)

8:20 am JC Zhao, Materials Under Extreme/Dynamic Conditions overview

8:30 am **Abigail Hunter**, LANL, “Materials under Extreme Conditions at LANL”

9:00 am **Hashem Mourad**, LANL, “Dynamic strain localization and fracture in metallic materials: Modeling, simulation and experimentation”

9:20 am **Blake Sturtevant**, LANL, “Static High Pressure Research at LANL”

9:40 am Break

9:50 am **Volkan Ortalan**, UConn, “Catching them in action: Dynamic Electron Microscopy to meet the challenges of the nanoworld”

10:10 am **Xinyu Zhao**, UConn, “Characteristics of heat transfer within thermal barrier coatings under high-pressure high-temperature conditions”

10:30 am **Yang Cao**, UConn, “Grand Electrification – Challenges and Opportunities for New Dielectrics and High Voltage Engineering”

SESSION V Opportunities for Collaboration
[Room 317](#)

11:00 am **Pamir Alpay** - opportunities for collaboration with UConn, follow up plans-action items

11:20 am **David Clark** – opportunities for collaboration with LANL, follow up plans – action items

11:40 am Other partnership opportunities, Q and A

12:00 pm Adjourn/Lunch
[Rear Lobby](#)