

2024 China-America Frontiers of Engineering Symposium
National Academies' Beckman Center, Irvine, California
June 17-19, 2024 / **June 18-20, 2024**

Program
Times in Red are Beijing Time

Symposium co-Chairs: Eleanor Allen, B Lab Global, and Jing Cheng, Tsinghua University

Monday, June 17/Tuesday, June 18

3:45	Bus departs hotel for Beckman Center	
4:00	Meeting registration/set up posters	
	<u>Meet with participants in China:</u>	
4:30 PM PDT 7:30 AM BJT	Welcome remarks: NAE president John Anderson; CAE president Li Xiaohong; and symposium co-chairs Eleanor Allen and Jing Cheng	<i>Huntington and Zoom meeting</i>
4:50 PM PDT/ 7:50 AM BJT	NANOTECHNOLOGY FOR HEALTH Session co-chairs: Zeinab Jahed, University of California, San Diego, and Dan Wang, Beijing University of Chemical Technology	
	<i>Session Introduction</i>	
	<i>Nanoparticle Drug Delivery for Cardiovascular Disease, Immunology, and Inflammation</i> Vincent Venditto, University of Kentucky	
	<i>Tools for Imaging at the Nanoscale</i> Lingyan Shi, University of California, San Diego	
	<i>Nanoprobe for Blood Oxygen Saturation Imaging</i> Yeteng Zhong, National Center for Nanoscience and Technology, China	
	<i>Nanofiber for Cardiac Tissue Culturing and Force Sensing</i> Songyue Chen, Xiamen University	
6:20 PM PDT/ 9:20 AM BJT	Break (30 min) to pick up dinner/breakfast	
6:50 PM PDT/ 9:50 AM BJT	Joint Poster Session Poster session I: Chinese attendees host posters (50 minutes) Poster session II: US attendees host posters (50 minutes)	<i>Zoom meeting with breakouts (throughout Beckman Center)</i>

8:30 PM PDT/ Close for the day
11:30 AM BJT Bus returns to hotel (US)

Tuesday, June 18/Wednesday, June 19

12:00 noon Bus departs hotel for Beckman Center

12:15 PM Lunch at Beckman Center

1:30 PM Flash poster session (attendees in US only) *Huntington*

2:15 PM Poster Sessions (attendees in US only) *Atrium*

3:45 PM Break

Meet with participants in China:

4:30 PM PDT/ **ENERGY TRANSITIONS AND CHALLENGES** *Huntington and*
7:30 AM BJT Session co-chairs: Joe Bozeman, Georgia Institute of Technology, and *Zoom meeting*
Hao Hu, Chinese Society for Electrical Engineering

Introduction

Micro Energy Nodes and Self-powered Sensing Technologies for Industrial Scenarios

Yunjia Li, Xi'an Jiaotong University

Energy-Material Cycles: Challenging the Analytical Methods and Vocabulary of the Energy Transition

John Mulrow, Purdue University

A Grid as Smart as the Internet

Yanli Liu, Tianjin University

Addressing Energy Poverty in the U.S. Energy Transition

Dominic Bednar, University of California, Irvine

6:00 PM PDT/ Break (15 min) to pick up dinner/breakfast
9:00 AM BJT

6:15 PM PDT/ Collaboration Brainstorming *Zoom meeting*
9:15 AM BJT *with breakouts*
(Beckman
Center First
Floor)

7:00 PM PDT/
10:00 AM BJT

KNOWLEDGE ENGINEERING AND TRANSPORTATION

Session co-chairs: Xiaolei Ma, Beihang University, and Cathy Wu,
Massachusetts Institute of Technology

*Huntington and
Zoom meeting*

Introduction

Next-generation Robot Perception Algorithms and Systems

Luca Carlone, Massachusetts Institute of Technology

*Federated Learning-based Fault Diagnosis for High-speed Railway
Systems*

Tao Wen, Beijing Jiaotong University

*A Reinforcement Learning Approach to Achieve More Efficient
Ridesharing Matches*

Sébastien Martin, Northwestern University

Air Transportation Network Optimization

Xiaoqian Sun, Beihang University

8:30 PM PDT/
11:30 AM BJT

Close for the day
Bus returns to hotel (US)

Wednesday, June 19/Thursday, June 20

12:00 noon Bus departs hotel for Beckman Center

12:15 PM Lunch at Beckman Center

1:15 PM Tours

3:45 PM Return to Beckman Center

4:00 PM Break

Meet with participants in China:

4:30 PM PDT/
7:30 AM BJT

A SUSTAINABLE OCEAN FUTURE

Session co-chairs: Zhen Gao, Shanghai Jiao Tong University, and Kakani
Katija, Monterey Bay Aquarium Research Institute

*Huntington and
Zoom meeting*

Introduction

*Exploiting the Synergies between Offshore Renewables and Aquaculture
through a Modular, Multi-Function Floating Platform*

Liang Li, Ocean University of China

Development of a Solar-driven Seawater Desalination System Based on Interfacial Evaporation

Xiaoyuan Zhang, Tsinghua University

Carbon and Nutrient Cycling

Mara Freilich, Brown University (Virtual)

5:45 PM PDT/
8:45 AM BJT

Break (30 min) for attendees to pick up dinner/breakfast

6:15 PM PDT/
9:15 AM BJT

Collaboration Breakouts, continued

*Zoom meeting
with breakouts
(Beckman
Center First
Floor)*

7:00 PM PDT/
10:00 AM BJT

Concluding Remarks by symposium co-chairs Eleanor Allen and Jing Cheng

*Huntington and
Zoom meeting*

7:15 PM PDT/
10:15 AM BJT

Meeting ends
Bus returns to hotel (US)