



7:00 – 8:00 am **Breakfast in the Gallery**

SESSION 1: CHALLENGES - STEINMETZ AUDITORIUM

7:50 – 8:00 a.m. **Welcome** - Annarita Giani, GE Research

8:00 – 8:05 a.m. **The Union of Quantum & Climate Research** - Karl Thibault, Université de Sherbrooke, Q4Climate

8:05 – 8:10 a.m. **Decarbonization Effort at GE Research** - Anil Duggal, GE Research

8:10 – 8:30 a.m. **Keynote: Challenges in Sustainability and Climate Change** - Pierre Gentine, Columbia University

PANEL DISCUSSIONS

8:30 – 9:00 a.m. **Challenges in Chemistry & Energy**

Bob Ledoux, ARPA-E (Lead)

Dimitar Trenev, ExxonMobil

Julian Van Velzen, Capgemini

Jon Owens, GE Research

Yifan Zhou, Stony Brook University

9:00 – 9:30 a.m. **Challenges in Optimization & Energy**

Aussie Schnore, Cognizant (Lead)

Guohui Yuan, SETO, DOE

Yan Li, Penn State University

Ibrahima Ndiaye, GE Research

9:30 – 10:00 a.m. **Challenges in Simulation, Modeling & Forecasting**

Per Nyberg, Orca Computing (Lead)

Aneesh Subramanian, University of Colorado Boulder

Jerrold Cline, GE Research

Reed Anderson, Naval Nuclear Laboratory

Balaji Jayaraman, GE Research

10:00 – 10:05 a.m. **Reminder of Objectives and Execution of Breakouts**

10:05 – 10:20 a.m. **Break**

10:20 – 11:45 a.m. **Parallel Breakout Rooms: Identifying Challenges**

CHEMISTRY & ENERGY (CR 9)

Moderator: **Bob Ledoux**, ARPA-E

Facilitator: **Marlou Slot**, NIST, Womanium

OPTIMIZATION (CR 4)

Moderator: **Aggie Branczyk**, IBM

Facilitator: **Carleton Coffrin**, LANL

MODELING & FORECASTING (CR 5)

Moderator: **Per Nyberg**, ORCA Comp

Facilitator: **Balaji Jayaraman**, GE Research





11:45 a.m. – 12:15 p.m. **Report Out and Summary of the Discussions**

12:15 – 1:15 p.m. **Group Photo and Lunch in the Gallery**

SESSION 2: POTENTIAL OF QUANTUM, 3-5 YEAR HORIZON - STEINMETZ AUDITORIUM

1:20 p.m. **Welcome** - Annarita Giani, GE Research

1:20 – 1:40 p.m. **Talk: Quantum Materials** - Marlou Slot, NIST and Womanium

PANEL DISCUSSIONS

1:40 – 2:10 p.m. **Quantum Hardware**

Travis Scholten, IBM (Lead)
Masako Yamada, IonQ
Pierre-Louis Peguy, D-Wave
Blaise Vignon, Alice & Bob
Michel Pioro-Ladrière, Nord Quantique

2:10 – 2:40p.m. **Quantum Algorithms & Software (NISQ/Fundamental/Hybrid)**

Sam Mugel, Multiverse (Lead)
Jhonathan Romero Fontalvo, Zapata Computing
Sonika Johri, Coherent Computing Inc.
Vlad Gheorghiu, SoftwareQ
Dominic Marchand, 1Qbit

2:40 – 3:10p.m. **Quantum Sensing & Networking**

Tracey Forrest, University of Waterloo (Lead)
Paul Dabbar, Bohr Quantum Technology
Marlou Slot, NIST and Womanium
Hari Paudel, National Energy Technology Laboratory (NETL)

3:10 – 3:30 p.m. **Break**

3:30 – 5:00 p.m. **Parallel Breakout Rooms: Quantum Approach Discussion**

CHEMISTRY & ENERGY (CR 9)

Moderator: **Bob Ledoux**, ARPA-E
Facilitator: **Marlou Slot**, NIST, Womanium

OPTIMIZATION (CR 4)

Moderator: **Aggie Branczyk**, IBM
Facilitator: **Carleton Coffrin**, LANL

MODELING & FORECASTING (CR 5)

Moderator: **Per Nyberg**, ORCA Comp
Facilitator: **Hari Paudel**, NETL

5:00 – 5:30 p.m. **Report Out and Summary of the Discussions**

6:00 – 8:00 p.m. **Dinner in the Gallery**





7:00 – 8:00 am **Breakfast in the Gallery**

SESSION 3: PROMISING APPLICATIONS - STEINMETZ AUDITORIUM

8:00 – 8:10 a.m. **Welcome - Annarita Giani**, GE Research

8:10 – 8:30 a.m. **Keynote: Democratize Quantum Computing for the Sustainable Development Goals (SDGs)**

Catherine Lefebvre, Geneva Science and Diplomacy Anticipator GESDA

8:30 – 9:15 a.m. **The Economy, Equity, and Democracy of Quantum Solutions**

Ali Arabnya, Quanta Technology (Lead)

Nick Farina, EeroQ

Will Zeng, Quantonation

Misty Wahl, Unitary Fund

9:15 – 9:35 a.m. **Talk: How to Invest in Quantum Technologies - Christophe Jurczak**, Quantonation

9:35 – 10:00 a.m. **Break**

PANEL DISCUSSIONS

10:00 – 10:30 a.m. **Chemistry & Energy Applications**

Justin Ging, Atom Computing (Lead)

Christian Metzl, Capgemini

Sayon Chanda, NREL

Michael Marthaler, HQS Quantum Simulation

10:30 – 11:00 a.m. **Optimization Applications**

Amin Khodaei, University of Denver (Lead)

Rozhin Eskandarpour, Resilient Entanglement

Carleton Coffrin, Los Alamos National Laboratory

Mike Hayduk, Air Force Research Laboratory

11:00 – 11:30 a.m. **Modeling, Simulation & Forecasting Applications**

Shreyas Ramesh, Accenture (Lead)

Soronzonbold Otgonbaatar, QC4EO Europe

Kara Sulia, University of Albany

Reuben Demirdjian, U.S. Naval Research Laboratory

11:30 – 12:15 p.m. **Organizational Meeting on Report Writing and Roles**

12:15 – 1:15 p.m. **Lunch in the Gallery**





SESSION 4: DEVELOPING CONVERGENCE BASED ACCELERATED SOLUTIONS FOR SOCIETAL IMPACT - STEINMETZ AUDITORIUM

1:15 – 2:45 p.m. **Parallel Breakout Rooms: Formulate Priorities and a Program**

CHEMISTRY & ENERGY (CR 9)	OPTIMIZATION (CR 4)	MODELING & FORECASTING (CR 5)
Moderator: Bob Ledoux , ARPA-E Facilitator: Marlou Slot , NIST, Womanium	Moderator: Aggie Branczyk , IBM Facilitator: Carleton Coffrin , LANL	Moderator: Per Nyberg , ORCA Comp Facilitator: TBD

2:45 – 3:15 p.m. **Report Out of the Three Working Groups**

Recommendation for a program in climate change, sustainability and quantum technologies.

3:15 – 3:20 p.m. **Adjourn**

