

Schedule summary

Time	September 5, 2024
8:30	Registration
	<i>Session A (Lecture hall) – Moderator:</i>
8:45	Welcome remarks
8:55	Plenary talk AVS Prairie Chapter Early Career Research Award <u>Li Yi</u> , Argonne National Laboratory - On-chip hybrid magnonic systems for quantum information science
9:45	<u>Jack D'Amelio</u> , UIUC - Optical characterization of single-crystal stoichiometric europium materials for quantum memory applications
10:05	<u>Hanyu Hou</u> , UIUC/ANL - High-resolution STEM cathodoluminescence of quantum emitters at the twist interface in 2D-exfoliated hBN
10:25	<u>Joshua Wagner</u> , University of Chicago - Coverage dependent diffusivity and binding of atomic oxygen on Moiré patterned graphene
10:45	Coffee break and poster presentations (Exhibition hall)
	<i>Session B (Lecture hall) – Moderator: Mauro Sardela</i>
11:05	AVS Prairie Chapter Outstanding Research Award presentation
11:10	Plenary talk AVS Prairie Chapter Outstanding Research Award <u>Seth B. Darling</u> , Argonne National Laboratory - Pushing the limits of membrane selectivity
12:00	<u>Abdeliah Asserghine</u> , UIUC - In situ detection of reactive oxygen species spontaneously generated on lead acid battery anodes: a pathway for degradation and self-discharge at open circuit
	Lunch (Exhibition hall and Meeting room)
12:20	Lunch and AVS Prairie Chapter business meeting (open to all)
1:10	Poster presentations (Exhibition hall)
	<i>Session C (Lecture hall) – Moderator: Kristen Flatt</i>
1:50	<u>Grace McKnight</u> , UIUC - Interstitial cluster families in semiconducting oxides: effects on post-synthesis defect engineering and purification using submerged surfaces
2:10	Plenary talk <u>Elizabeth Goldschmidt</u> , University of Illinois at Urbana-Champaign - Quantum photonics with rare-earth materials
3:00	Plenary talk <u>Elena Shevchenko</u> , Argonne National Laboratory - Design of nanoscale materials
3:50	Coffee break and poster presentations (Exhibition hall)
	<i>Session D (Lecture hall) – Moderator: Timothy Spila</i>
4:15	<u>Xierong Qian</u> , UIUC - Experimental efforts in water-ethanol-dimethylformamide ternary solvent to optimize advanced Pourbaix diagrams
4:35	<u>Dairong Liu</u> , UIC - Nanoscale chemical probing of metal-supported ultrathin ferrous oxide
4:55	<u>Benjamin Heiner</u> , University of Notre Dame - Scanning tunneling microscopy of ferrocenecarboxylic acid assemblies on Ag(111): a Comparison to Au(111)
5:15	<u>Myoung-Woo Yoo</u> , UIUC - Thermal contribution to current-driven antiferromagnetic-order switching in Mn₃Sn
5:35	<u>Michael van Duinen</u> , University of Chicago - High-temperature diffraction and surface electron-phonon coupling of the unreconstructed metallic and (3x1)-o reconstructed nb(100) surfaces by helium atom scattering
6:00	Closing reception and awards ceremony

List of events

- 8:00 – Poster and vendor exhibit setup starts (Exhibition hall)
- 8:30 – Registration opens (Exhibition hall)
- 8:45 – Conference talks start (Lecture hall)
- 10:45 – Equipment Exhibition and poster area opens
(Exhibition hall)
- 10:45 – Coffee break at the Equipment Exhibition
(Exhibition hall)
- 10:45 – Poster presentations and judging - round 1
(Exhibition hall)
- 11:05 – Conference talks resume (Lecture hall)
- 12:20 – Lunch served (Meeting room)
- 12:20 – AVS Prairie Chapter business meeting – open to all
(Meeting room) (12:20 to 1:10)
- 1:10 - Poster presentations and judging - round 2
(Exhibition hall) (1:20 to 2:00)
- 1:50 – Conference talks resume (Lecture hall)
- 3:50 – Coffee break at the Equipment Exhibition
(Exhibition hall)
- 3:50 – Poster presentations and judging - round 3
(Exhibition hall)
- 4:15 – Conference talks resume (Lecture hall)
- 4:15 – Equipment Exhibition closes
- 5:55 – Awards judges meeting (meeting room) – closed to the public
- 6:00 – Closing reception and awards ceremony
(Exhibition hall)

Exhibition hall – 2008 SC and 2nd floor lobby SC

Lecture hall – 190 ESB

Meeting room – 208 MRL

Plenary talks

9:15

On-chip hybrid magnonic systems for quantum information science



Li Yi

Assistant Scientist in the Superconductivity and Magnetism Group
Argonne National Laboratory
2024 AVS Prairie Chapter Early Career Award

11:05

Pushing the limits of membrane selectivity



Seth B. Darling

Chief Science & Technology Officer for the Advanced Energy
Technologies Directorate
Argonne National Laboratory
2024 AVS Prairie Chapter Outstanding Researcher Award

2:15

Quantum photonics with rare-earth materials



Elizabeth Goldschmidt

Assistant Professor, Physics
University of Illinois at Urbana-Champaign

3:05

Design of nanoscale materials



Elena Shevchenko

Scientist, Nanoscience
Argonne National Laboratory