

# 2023 Battery Safety Workshop Agenda

Address: Room 345, Duke Centennial Hall, UNC Charlotte

Thursday, June 8, 2023

7:30 am-8:20 am	Registration and Breakfast
8:20 am-8:30 am	Opening Remarks
8:30 am-9:00 am	Welcome Remarks <ul style="list-style-type: none"><li>Prof. Robert Keynton, Dean of the William States Lee College of Engineering</li></ul>
9:00 am-9:40 am	Battery Safety, Internal Short Mechanism, and Corresponding Fundamentals. Speaker: Dr. John Zhang (Celgard)
9:40 am-10:20 am	Thermal Safety Investigation of Lithium-Ion Batteries: Materials and Cells Speaker: Dr. Wenquan Lu (Argonne National Lab)
10:20 am-10:40 am	<i>Coffee Break, photograph</i>
10:40 am-11:20 am	Vehicle Dynamic Events and Battery Response for Safety Speaker: Dr. Uday Korde (GM)
11:20 am-12:00 pm	Perspectives on Lithium Metal Battery Fabrication and Testing Speaker: Dr. Killian Tallman (Albemarle)
12:00 pm-1:00 pm	<i>Lunch Break</i>
1:00 pm-1:40 pm	Toward Predicting Fire Hazard of Li-ion Battery Containing System Speaker: Dr. Dong Zeng (FM Global)
1:40 pm-2:20 pm	Using a Wholistic Approach and Innovative Technology to Advance Battery Safety Speaker: Dr. Drew Pereira (Soteria)
2:20 pm-3:00 pm	LIOVIX® Printable Lithium Technology for Advanced Anode Manufacturing Speaker: Dr. Jian Xia (Livent)
3:00 pm-3:20 pm	<i>Coffee Break</i>

3:20 pm-4:00 pm	Enhancing Battery Safety and Performance with Higher Operating Temperatures Speaker: Prof. Brian McCarthy (EC Power)
4:00 pm-4:40 pm	Predicting Li-ion Battery damages and thermal runaway under mechanical loading through simulation Speaker: Mr. Jean-Baptiset Mouillet (Altair) (Remote)
5:00 pm-7:30 pm (BATT CAVE building)	BATT CAVE Lab Tour Poster exhibition/Award Announcement (Dr. Anthony Bombik) Socialization/Light dinner

### Friday, June 9, 2023

7:30 am-8:20 am	Registration and Breakfast
8:20 am-9:00 am	Multiphysics-Multiscale Driven Design of Battery Cells Speaker: Dr. Sandeep Kulathu (SIMULIA)
9:00 am-9:40 am	Near End-of-Life Internal Short Circuit Phenomenon in Commercial Lithium-ion Cells Speaker: Dr. Quinn Horn (Exponent)
9:40 am-10:20 am	Physics-Informed Machine Learning for Battery Degradation Diagnostics: A Comparative Study Speaker: Dr. Chao Hu (Univ. Conn.)
10:20 am-10:40 am	<i>Coffee Break</i>
10:40 am-11:20 am	Fluid Mechanics of Venting in Small Format Li-ion Cells Speaker: Prof. Jason Ostanek (Purdue Univ.)
11:20 am-12:00 am	Understanding Internal Short Circuit and Thermal Runaway of Lithium-ion Cells through In Situ Diagnosis Speaker: Prof. Guangsheng Zhang (UA in Huntsville)
12:00 pm-1:00 pm	<i>Lunch Break</i>
1:00 pm-1:10 pm	Introduction to the Battery Safety and Durability Team
1:10 pm-1:40 pm	Mechanical abuse tolerance of lithium-ion pouch cell for EVs Speaker: Prof. Xinyu Huang (U of SC)

1:40 pm-2:10 pm	Highly Reversible Zn Metal Anode Enabled by Sustainable Hydroxyl Chemistry Speaker: Prof. Lin Ma (UNC Charlotte)
2:10 pm-2:40 pm	TBD Speaker: Prof. Golareh Jalilvand (U of SC)
2:40 pm-3:10 pm	Interactions Between SiO and Gr Particles During the Multiphysics Behavior of Anode Materials Speaker: Dr. Xiang Gao (UNC Charlotte)
3:10 pm-3:40 pm	Are Aged Cells More Dangerous Than Fresh Cells? Speaker: Dr. Jun Xu (UNC Charlotte)
3:40 pm-4:00 pm	<i>Coffee Break</i>
4:00 pm	Close