ACRC Spring/Summer Meeting
June 20 (Th), June 21 (Fri), 2024

Location: Room 1000, Fontana Labs (140 W 19th Ave, Columbus, OH)

Thursday June 20 (all in Eastern Standard Time EST)

8:30 - 9:00 a.m.   Registration & Continental Breakfast - Fontana Atrium

9:00 – 10:15 a.m.  Welcome and Opening Presentations – Fontana 1000
  ▪ Welcoming comments, Mike Mills (OSU MSE Chair) (5 mins)
  ▪ Update from Board Chair, Sonia Alreja (VJT) and Jason Sebastian (Questek) (10 mins)
  ▪ ACRC Updates, Diran Apelian (UCI), Carl Söderhjelm (UCI) and Alan Luo (OSU) (15 mins)

  Welcome our New and Prospective Members
  ▪ Audubon Metals – Matthew Gavin (8 mins)
  ▪ ORNL – Sumit Bahl (8 mins)
  ▪ SANDIA Camino – Josh Yee (8 mins)
  ▪ Altek-Harsco – James Herbert (8 mins)

10:15 – 10:30   Metal Casting Research Funding Opportunities
                 Brian Began, AFS (15 mins)

10:30 - 10:45 a.m.   Break

10:45 - 11:30 a.m.  Featured Keynote - Fontana 1000

  Chips and Science Act - Investment Opportunities for Manufacturing Industries

  Steven A. Ringel
  Associate Vice President for Research, Office of Research
  Executive Director, Institute for Materials and Manufacturing Research

11:30 - 12:00 p.m.  Physics of Ultrasonic Treatment of Metals and Applications
                    Research status presentation, Raquel Jaime (UCI).

12:00 – 12:30 p.m.  Focus Group (FG) discussion moderated by Martijn Vos - FG Chair. FG members: Stuart Weisner (Al Rheinfelden); Aakash Doshi (Almex USA); Ravi Tilak (Almex USA); Brian Began (AFS); Mick Nallen (Thermatool); Mark Henson (EMC); James Herbert (Altek)

12:30 - 1:30 p.m.   Lunch – Fontana Atrium
1:30 - 2:00 p.m. **Green Alloy Project**  
Research status presentation, *Shri Shankar (UCI).*

2:00 - 2:30 p.m. **Focus Group (FG) discussion** moderated by *Stuart Wiesner (Al Rheinfelden) – FG Chair.* FG members: Martijn Vos (Al Rheinfelden); Jose Talamantes (Nemak); Qigui Wang (GM); Serge Quantin (Linamar Light Metals); and John Newman (Al Association).

2:30 - 3:00 p.m. **Thermal Management of Molds**  
Research status presentation, *Cheolmin Ahn (UCI).*

3:00 - 3:30 p.m. **Focus Group (FG) discussion** moderated *Brian Began (AFS) - FG Chair.* FG members: Victor Khristov (CPC); Jose Talamantes (Nemak); Serge Quantin (Linamar Light Metals); and Aakash Doshi (Almex USA).

3:30 – 4:00 p.m. **Break**

4:00 - 4:30 p.m. **Alloy Development Project (Thermal Conductivity)**  
Research status presentation, *Kentaro Lunn (UCI).*

4:30 - 5:00 p.m. **Focus Group (FG) discussion** moderated by *Jason Sebastian (QuesTek) and John Jiang (Harley Davidson) - FG Chairs.* FG members: M. Vos and S. Wiesner (Al Rheinfelden); and K. Anderson (Mercury Marine).

5:00 p.m. **Adjourn Day 1**

6:00 p.m.

**Reception and Dinner (Reception 6-7 pm; Dinner 7-9 pm)**  
*Sponsored by Audubon Metals*

J. Liu Restaurant  
6880 N High St  
Worthington, OH 43085  
(614) 888-1818  
www.jliurestaurant.com
Wednesday December 13, 2023 (all in Eastern Standard Time EST)

8:00 - 9:00 a.m.  Continental Breakfast - Fontana Atrium
9:00 - 9:30 a.m.  Featured Keynote - Fontana 1000

The nexus of artificial intelligence and material science – MatGPT

Achim Tappe, Chief Digital Officer at Fehrmann MaterialsX

9:30 - 10:00 a.m.  Eutectic solidification of multicomponent aluminum alloys: impact on hot-tearing and castability
Research status presentation, Jianyue Zhang (OSU)

10:00 - 10:30 am  Focus Group (FG) discussion moderated by Qigui Wang (GM)
FG members: Ryan Breneman (Pratt & Whitney); Xinyan Yan (Alcoa); John Jiang (Harley-Davidson); Larry Godlewski (Ford).

10:30 -10:45  Break

10:45 - 11:15 a.m.  Optimization-based design for casting development
Research status presentation, Alan Luo (OSU)

11:15- 11:45 am  Focus Group (FG) discussion moderated by Joshua Robbins (Sandia) – FG Chair. FG members: Randy Beals (Magna); Xinyan Yan (Alcoa); Jose Talamantes (Nemak); John Jiang (Harley-Davidson); Qigui Wang (GM); Larry Godlewski (Ford).

11:45 – 12:30 pm  ACRC Complementary Projects
- Thermal Management Projects (ATI and DOE) (15)
  Carl Söderhjelm (UCI)
- Achieving 100% Recycled Aluminum in Die Casting Applications (REMADE) (15)
  Gabriel Garcia (OSU)
- Simulation and validation of externally solidified crystal formation in aluminum high pressure die casting (NADCA) (15)
  Nicole Tromter (OSU)

12:30 p.m.  Closing Comments
Diran Apelian, Carl Soderhjelm (UCI) and Alan Luo (OSU)

12:30   Lunch - Fontana Atrium

1:00 - 2:00 p.m.  Tour of Laboratories and Facilities (for interested members)

Adjourn Day 2

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