



Schedule

September 19-20, 2016

Monday, September 19th

- 1:00 **Welcome and Overview of the State of the Industry**
Roy Hardy, Forging Industry Association
- 1:20 **FIA & FIERF Activities**
Karen Lewis, Forging Industry Educational & Research Foundation
- 1:35 **Forging Steel Selection: Chemistry, Microstructure, Precautions and Performance**
Invited Speaker Dr. George Krauss, FASM, Professor Emeritus, Colorado School of Mines
- 2:15 **Research, Development and Education in Forging Technology – A Global View & Comparison**
Invited Speaker Dr. Taylan Altan, Faculty Emeritus, Ohio State University
- 2:55 Break
- 3:30 **May You Live In Interesting Times; Or, Will Your Forge Flourish or Perish?**
Invited Speaker Jon Tirpak, PE, FASM, President ASM International
- 4:10 **Microstructure Development during Tempering**
Invited Speaker Dr. Richard D. Sisson, Jr., George F. Fuller Professor, Worcester Polytechnic Institute
- 5 – 7 Reception/Dinner/Poster Session/Exhibit Hall



Tuesday, September 20th

R & D Track

Applied Technology Track

- 8:00 **Cooling Rates of Microalloyed Steels**
Markus Knoerr, HHI Forging, LLC
- 8:30 **Exploration of New Forging Materials: High Entropy Alloys** Dr. Markus Young/Nathan A. Ley, University of North Texas
- 9:00 **Effect of Initial Microstructure on the Microstructural Evolution and Tensile Properties of "Warm Deformed" 4140 Steel** Dr. Sammy Tin, Illinois Institute of Technology
- 9:30 **The Effect of Forging Practice and Sulfide Inclusions on the Mechanical Properties and Fatigue Performance of Large Steel Crankshafts** John Paules, Ellwood Group, Inc.

- Weight Reduction for Heavy Duty Trucks via Innovative Forging Technologies** Dr. Gracious Ngaile, North Carolina State University
- Production and Processing of Al-Mg Compounds by Co-Extrusion and Forging** Dipl.-Ing. Wolfgang Förster, Chemnitz University of Technology
- Magnesium-Alloy Forgings for Automotive Applications** Dr. Mary Wells, University of Waterloo
- Experimental Study of Surface Topography in Hot Compression** Dr. Joe Domblesky, Marquette University

Break

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- 10:15 **Alcoa Expansions in Additive Manufacturing Technologies Deepen Capabilities** Dustin Bush/ Brandon Bodily, Alcoa Forgings and Extrusions
- 10:45 **Processing - Microstructure - Property Relationships in Additively Manufactured Metallic Alloys** Dr. Richard D. Sisson, Jr., Worcester Polytechnic Institute
- 11:15 **Industrial Implementation of Metals Additive Manufacturing, Past, Present and Exciting Future** Edward D. Herderick, Ph.D., GE Corporate Supply Chain and Operations
- 11:45 **Applications of Additive Manufacturing in Forging** Dr. David Schwam, Case Western Reserve University

- Development of Non-traditional Synthetic Lubricants for Hot and Warm Forging** Steven Goodchild, CONDAT Corp.
- Comprehensive Simulation of Solidification, Forging and Heat Treatment Process of Large Size High Strength Steel Ingots** Dr. Mohammad Jahazi, Ecole de Technologie Superieure
- Optimization of Process & Quality Controls using Barcoded Identification in Forging Operations** Doug Fry, MBA, InfoSight Corporation
- Smart Sensing of Forging Operation via Tonnage Signature Analysis** Dr. Judy Jin, The University of Michigan

Lunch in Exhibit Hall

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- 1:10 **Forging Defense Manufacturing Consortium PRO-FAST Program Overview** Dean Hutchins, Defense Logistics Agency
- 1:40 **Forged Fiber Reinforced Aluminum** Karin Karg, Triton Systems, Inc.
- 2:10 **Cladding Repair and Enhancement of Forging Dies** Dr. David Schwam Case Western Reserve University
- 2:40 **Design of Experiments and Simulation** Matt Miller, Cornell Forge Company
- 3:10 **Forging Process Improvement Using Intensive Quenching Immediately After Forging Operations Are Completed** Michael Aronov/Joe Powell, IQ Technologies, Inc.

- Effect of Violating Forging Hammer Manufactures' Recommendations** Dr. John Frater, Cleveland State University
- Developments of New Features for Profiled Ring Rolling** Dr. Andreas Lieb, SMS group GmbH
- Achieving Optimal Temperature Uniformity in a Slot Forge Gas Fired Furnace - a Case Study** Justin Dzink, P.E., Fives North American Combustion, Inc.
- Induction Heating and Heat Treating Metallic Products** Dr. Valery Rudnev, FASM, Inductoheat, Inc.
- Optimization of Gas-Fired Forging Furnaces** Dr. Alberto Cantu-Perex, Nutec Bickley S.A. DE C.V.

Adjourn

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