

62nd Annual H.R. Bergmann Memorial Seminar

Tuesday, April 14, 2020 9am-4pm



Advances in Casting - Science and Technologies

The Bergmann Seminar is the ASM Milwaukee Chapter's capstone technical seminar of the year and has been an annual event for the Milwaukee Chapter for over 60 years of our 100-year history. The seminar is designed to bring renowned experts together to educate engineers involved in the many materials related industries in Wisconsin.

The topic for this year's seminar is ***Advances in Casting - Science and Technologies***. The seminar will highlight topics such as simulation techniques, additive technologies, advances in fundamental understanding of the casting process, casting alloy or process development, novel equipment or processes related to metal casting.

The presentations by experts from industry and academia are aimed at exploring advances in metal casting processes and alloys either by illustrative examples or through real world case studies. The background fundamentals underlying the computational tools or methods will be introduced so that the audience can better appreciate their applications. The topics and presentations are geared towards engineers and technicians in design, product and process development, production, and quality control fields.

This year's seminar will be held on Tuesday, April 14, 2020, from 9am-4pm at the Alumni Partnership Center (APC) on the campus of The Milwaukee School of Engineering (MSOE).

Event details – April 14, 2020

Schedule: 9:00 - Registration
 9:30 - Sessions begin
 12:00 - Lunch
 1:00 - Sessions resume
 4:00 - Event ends (Happy Hour to follow)

Cost* \$45 Individual ASM Members
 \$60 Nonmembers
 \$30 Employees of Chapter Sustaining Member Companies
 Free Full-time students & Chapter Sustaining Member Representatives
 *Cost includes all food (coffee, snacks, lunch and refreshments) as well as lot parking.

Location: Milwaukee School of Engineering
 Alumni Partnership Center
 1120 N. Broadway
 Milwaukee, WI 53202

Parking: **Free parking** is available for the seminar in the lot adjacent to the APC.

Agenda:

Title	Speaker	Organization
Casting and Additive Manufacturing of Advanced Aluminum Alloys Containing Cerium	David Weiss	Eck Industries
Solidification Behavior in Additive Manufacturing	Dan Thoma	University of Wisconsin - Madison
Cost, Material Selection, and Design Justification of Additively Manufactured Casting Dies	Adam Kopper	Mercury Marine
Susceptibility of Al Alloys to Hot Tearing	Sindo Kou	University of Wisconsin - Madison
Advances in Casting Simulation	Cristoph Beckermann	University of Iowa
Steel Casting Performance and Reliability	Ray Monroe & David Poweleit	Steel Founders' Society of America
Advances in Aerospace Investment Casting	Joe Hagan	Arconic
Microstructure and Properties of Cast High Nickel Alloys for Energy Applications	Govindarajan Muralidharan	Oak Ridge National Laboratory
Melting & Centrifugal Casting of Advanced Nickel Base Alloys	Paul Enders	MetalTek International

History of the Annual H.R. Bergmann Memorial Seminar

The Milwaukee Chapter of ASM International has held educational seminars for its members and beyond for over 60 years. The namesake of the seminar is Bob Bergmann.

Bob Bergmann received a B.S. degree in Mechanical Engineering from the University of Wisconsin-Madison in 1951, after serving actively in the U.S. Army Infantry from 1943-1946. He later completed his thesis requirement and received his M.S. degree in Metallurgical Engineering from the University of Wisconsin while employed at the Falk Corporation. He joined the Falk Corporation in 1951 and was Supervisor of Materials Engineering for 18 years prior to his death.



H. Robert Bergmann
1925-1973

His responsibilities at the Falk Corporation included material specifications, materials research and development, failure analysis, the Materials Laboratory, and ultrasonic and radiographic inspections. Bob also was the Radiation Safety Officer at the Falk Corporation.

Bob was very active in the American Society for Metals-Milwaukee Chapter for 21 years, being a past Vice Chairman and serving on many committees. He also was a voting member of both the American Gear Manufacturer's Association and the American Society for Testing and Materials. Bob presented many papers to groups such as the ASM, Steel Founders' Society of America as well as universities and colleges. Subjects included heat treatment of gears, designing for quality, machinability, quenching, and design of castings for weld fabrication.

Despite his busy schedule, Bob found time to serve his community, being very active in his church and local school activities. In addition, he was the past President of the Brookfield Players, Inc., and served as a production worker and/or actor in 15 plays. Bob enjoyed the outdoors, camping with his wife and five daughters, gardening, and projects around the home.