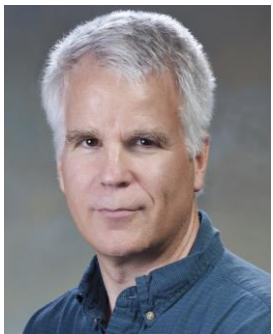




Heliostat Consortium Seminar Series

Brought to you by the Resource, Training, and Education (RTE) topic area



Wagon Wills
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Dr. Randy Brost
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Host: Dr. Rebecca Mitchell

Title: Advanced Manufacturing for
Heliostats: What We Can Learn from
Automotive Joining Technologies,
Materials, and Automation

When: August 11th 3-4 PM MDT

Zoom:
<https://nrel.zoomgov.com/j/1608929076?pwd=RStHcURySCtpRnVyYkgrKzBOT581UT09>

Abstract:

High economic performance of a heliostat solar field requires simultaneous achievement of high optical precision, robustness in a demanding environment, and low cost of the delivered manufactured product. Achieving these goals requires consideration of all factors from the early design stages forward, and design for manufacturability is a powerful and proven approach. The problem of heliostat and facet manufacturing, one where thin gauge metallic parts must be joined and transferred within fast cycle times and at low cost, has many similarities with automotive body structures. Some of the innovations in materials and joining processes spurred by OEM efforts to increase fuel efficiency, performance, and safety may offer value to heliostat designers and engineers. Leveraging these automotive tools may highlight some additional paths to lighter, lower cost heliostats.

Bios:

Wagon Wills is Chief Engineer at Gonzalez Production Systems and has worked in various engineering roles over the last 16 years. He has worked in product development and on automation projects in numerous industries including automotive, renewable energy, aerospace, and heavy industry. His key areas of interest and expertise are in design for manufacturing, material selection, design optimization, joining technologies, and robotic systems.

Dr. Randy Brost leads projects related to concentrating solar optics and manufacturing in the Sandia National Laboratories Concentrating Solar Power Technologies group. He has experience in commercial concentrating solar collector design, implementing custom software tools and hardware to support advanced manufacturing, metrology, and physics analysis, and robotics research. Key positions include Eastman Kodak Company, SkyFuel, and Sandia.