

Remote Measurement of Heliostat Soiling Seminar

February 18, 2026
1 PM MT / 3 PM ET



Derek Schulte
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Brought to you by the Heliostat Consortium in partnership with the Remote Telemetry Estimation (RTE) topic area

BIO

Derek Schulte is an opto-mechanical design consultant and sole proprietor at DKA Design LLC. He has worked on the design and preliminary data from Phase 1 of the RTE project, which estimates soiling by comparing the brightness of shaded and unshaded mirror regions, potentially eliminating the need to conduct field mirror reflectance measurements as well as providing comprehensive and timely field soiling data. He is currently working on the design and preliminary data from Phase 2 of the RTE project, funded by HelioCon. The goal of the RTE project is to develop a method for remotely estimating soiling by remotely comparing the brightness of shaded and unshaded mirror regions, potentially eliminating the need to conduct field mirror reflectance measurements as well as providing comprehensive and timely field soiling data.

He previously led the design and construction of multiple heliostats in addition to heliostats for the NREL and Sandia National Laboratories. He has 25 years of experience in the design and construction of consumer 3D printers and laser optics for defense, telecommunications, and laser applications.

Preliminary camera-based observations of partially shaded (and artificially soiled) mirror coupons within a subscale angular testbed will be presented along with their corresponding hemispherical and directional reflectometer reflectance measurements.



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HelioStat Consortium Seminar series host:
Dr. Ulrike Egerer

Register on Zoom: <http://bit.ly/4onr8aO>