



THE UNIVERSITY OF ARIZONA

Wyant College
of Optical Sciences

INDUSTRIAL AFFILIATES WORKSHOP

FACULTY SPEAKER PROFILE



DAEWOOK KIM, ASSOCIATE PROFESSOR OF OPTICAL SCIENCES

Tuesday, February 15, 2022 | 1:30 p.m.

Title: "OASIS: Inflatable Space Telescope Technology"

Abstract: A disruptive space telescope concept, the 20-meter OASIS (Orbiting Astronomical Satellite for Investigating Stellar Systems), is being designed and developed at the University of Arizona. OASIS combines break-through inflatable aperture and metrology techniques to realize the dream of a 10 - 20 meter class spaceborne terahertz/far-infrared telescope. The OASIS concept has the potential to greatly reduce mission costs and risks compared to the current state of the art.

Bio: Daewook Kim is an associate professor of optical sciences and astronomy at the University of Arizona. He has been working in the optical engineering field for more than 15 years, including NASA Aspera UV space telescope mission, 25 m diameter Giant Magellan Telescope, and commercial Augmented Reality freeform glass project. His main research area covers precision freeform optics design, fabrication, and various metrology topics, such as interferometric test systems using computer-generated hologram, wavefront curvature measurement, and dynamic deflectometry system. For the past 10 years, Daewook has been chairing conference programs including the Optical Manufacturing and Testing conference (SPIE), Optical Fabrication and Testing conference (OSA), and the Astronomical Optics: Design, Manufacture, and Test of Space and Ground Systems conference (SPIE). He is also teaching the SPIE Optical Testing Short Courses. He has published more than 170 journal/conference papers and served as an associate editor for the Optics Express journal for 7 years. He gave more than 20 plenary, keynote, colloquium talks at various international conferences and universities. Prof. Kim is an SPIE Fellow.



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