

RUTGERS-CAMDEN MATH SEMINAR SERIES

12:45 PM - 1:45 PM, APRIL 24TH, 2025

ARMITAGE - 121

Haibin Ling
Stonybrook University



Title: Intelligent Projector Systems for Spatial Augmented Reality

Abstract: The rapid advancement of imaging techniques and artificial intelligence has revolutionized research and applications in visual intelligence (VI). In this talk, I will present our studies covering a broad range of topics in VI, including visual recognition, video understanding, visual enhancement, and relevant machine learning techniques, with applications in virtual/augmented reality, biomedical research, and more. I will then present our recent work applying AI to projector systems for spatial augmented reality tasks. In particular, image-based relighting, projector compensation and depth/normal reconstruction are three important tasks of projector-camera systems (ProCams) and spatial augmented reality (SAR). We will also briefly show our recent work on language-guided projection content generation. This is a joint work with Bingyao Huang

Biography: Dr. Haibin Ling is SUNY Empire Innovation Professor of Computer Science at Stony Brook University. Professor Ling received his B.S. from Peking University and Ph.D. from the University of Maryland, College Park. He was a research scientist at Microsoft Research Asia and Siemens Corporate Research, a postdoctoral scientist at UCLA, and a faculty member at Temple University before joining Stony Brook University in 2019. His research interests include computer vision, augmented reality, medical image analysis, machine learning, and human computer interaction. He received NSF CAREER Award (2014), Yahoo Faculty Research and Engagement Award (2019), and Amazon Machine Learning Research Award (2019). He serves or served as Associate Editors for IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI), IEEE Trans. on Visualization and Computer Graphics (TVCG), Computer Vision and Image Understanding (CVIU), and Pattern Recognition (PR), and as Area Chairs various times for CVPR, ICCV, ECCV and WACV. He is a fellow of IEEE.

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