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Table of Contents

Program	v
Message from the Chairs	Xi
Organizers	XV
Steering Committee	xvi
Program Committee	xvii
Sponsors	xviii
Keynote Speakers	xix
Invited Speakers	xxii
Awards	xxxii

Program

DAY 1 (Monday, August 1 st)
Opening Remarks — 9:00 PDT
Papers Session 1 (4 talks) — 9:30
Learning Spatially Varying Pixel Exposures for Motion Deblurring
MantissaCam: Learning Snapshot High-dynamic-range Imaging with Perceptually-based Inpixel Irradiance Encoding
Rethinking Learning-based Demosaicing, Denoising, and Super-Resolution Pipeline
Physics vs. Learned Priors: Rethinking Camera and Algorithm Design for Task-Specific Imaging53 Tzofi M Klinghoffer (Massachusetts Institute of Technology); Siddharth Somasundaram (Massachusetts Institute of Technology); Kushagra Tiwary (Massachusetts Institute of Technology); Ramesh Raskar (Massachusetts Institute of Technology)
Invited Talk — 10:30
3D fluorescence and phase microscopy with scattering samples Yi Xue (University of California, Davis)
Coffee Break — 11:00
Keynote 1 — 11:30
Advances in Visual Communication Shree Nayar (Columbia University)
Lunch Break — 12:30
Invited Talk — 14:00

Diffractive Optical Networks and Computational Imaging Without a Computer

Aydogan Ozcan (UCLA)

Papers Session 2 (3 talks) — 14:30

Poster Spotlights 1 — 15:15

Coffee Break — 15:30

Poster Session 1 — 16:00

DAY 2 (Tuesday, August 2nd)

Invited Talk — 9:00 PDT

Connecting Optics and Mechanics: How do Vision-based Sensors Help Robots Understand Touch?

Wenzhen Yuan (Carnegie Mellon University)

Papers Session 3 (4 talks) — 9:30

A Two-Level Auto-Encoder for Distributed Stereo Coding	
First Arrival Differential LiDAR	
PS2F: Polarized Spiral PSF for single-shot 3D sensingN/A Bhargav Ghanekar (Rice University); Vishwanath Saragadam (Rice University); Dushyant Mehra (Rice University); Anna-Karin Gustavsson (Rice University); Aswin Sankaranarayanan (Carnegie Mellon University); Ashok Veeraraghavan (Rice University) PAMI Special Issue Paper	

William Krska (Boston University); Sheila Seidel (Boston University); Charles Saunders (Boston University); Robinson Czajkowski (University of South Florida); Christopher Yu (Charles Stark Draper Laboratory); John Murray-Bruce (University of South Florida); Vivek K Goyal (Boston *University*)

Invited Talk — 10:30

Computational Microscopy: Coherent Diffractive Imaging with Photons and Electrons Jianwei (John) Miao (UCLA)

Coffee Break — 11:00

Keynote 2 — 11:30

Computation in microscopy: How computers are changing the way we build and use microscopes Changhuei Yang (Caltech)

Group Photo — **12:30**

Lunch Break — 12:45

Invited Talk — 14:00

Space Starlight Suppression Technology Demonstration: The Nancy Grace Roman Space Telescope Coronagraph

Marie Ygouf (Jet Propulsion Laboratory)

Papers Session 4 (3 talks) — 14:30

Variable Imaging Projection Cloud Scattering Tomography...N/A

Roi Ronen (Technion); Schechner Yoav (Technion); Vadim Holodovsky (Technion)

PAMI Special Issue Paper

Wide-Baseline Light Fields using Ellipsoidal Mirrors...N/A

Michael De Zeeuw (Carnegie Mellon University); Aswin Sankaranarayanan (Carnegie Mellon University)

PAMI Special Issue Paper

Poster Spotlights 1 — 15:15

Coffee Break — 15:30

Poster Session 1 — 16:00

Reception — 18:30

DAY 3 (Wednesday, August 3rd)

Invited Talk — 9:00 PDT

Photoacoustic Tomography of Molecular Absorption from Organelles to Patients Lihong Wang (Caltech)

Papers Session 5 (4 talks) — 9:30

Invited Talk — 10:30

Non-anthropocentric Imaging with and without optics Rajesh Menon (University of Utah)

les); Oyku Deniz Bozkurt (UCLA); Achuta Kadambi (UCLA)

Coffee Break — 11:00

Keynote 3 — 11:30

Physics-based end-to-end image systems simulations Joyce Farrell (Stanford University)

Lunch Break — 12:30

Invited Talk — 14:00

Alien Oceans on Earth and Beyond Kevin Hand (Jet Propulsion Laboratory)

Papers Session 6 (4 talks) — 14:30

In	vited Talk — 17:00	
	Physics to the Rescue: Deep Non-line-of-sight Reconstruction for High-speed ImagingN/A Fangzhou Mu (University of Wisconsin-Madison); SICHENG MO (University of Wisconsin-Madison); Jiayong Peng (University of Science and Technology of China); Xiaochun Liu (University of Wisconsin-Madison); Ji Hyun Nam (University of Wisconsin-Madison); Siddeshwar Raghavan (Purdue University); Andreas Velten (University of Wisconsin-Madison); Yin Li (University of Wisconsin-Madison) PAMI Special Issue Paper	
	HiddenPose: Non-line-of-sight 3D Human Pose Estimation	.304
Pa	pers Session 7 (2 talks) — 16:30	
	Computational Imaging Challenges in Ecological Monitoring Sara Beery (MIT)	
In	vited Talk — 16:00	
Co	ffee Break — 15:30	
	Differentiable Appearance Acquisition from a Flash/No-flash RGB-D Pair	.264
	MPS-NeRF: Generalizable 3D Human Rendering from Multiview ImagesN/A Xiangjun Gao (Beijing institute of technology); Jiaolong Yang (Microsoft Research); Jongyoo Kim (Microsoft Research Asia); Sida Peng (Zhejiang University); Zicheng Liu (Microsoft); Xin Tong (Microsoft) PAMI Special Issue Paper	
	Time-of-Day Neural Style Transfer for Architectural Photographs	
	Robust Scene Inference under Noise-Blur Dual Corruptions	.230

Closing Remarks — 17:30

David Van Valen (Caltech)

Everything as code