



Society for Imaging Science and Technology



HOME/AT-A-GLANCE

SYMPOSIUM PROGRAM

SHORT COURSES

CONFERENCES

SYMPOSIUM PLENARY

SPEAKERS

AUTHOR/SUBMIT

ATTEND/REGISTER

EXHIBIT/SPONSOR

FOR STUDENTS

IMPORTANT DATES

Registration Opens	2025 Dec.
FastTrack Proceedings Manuscripts Due	2026 9 Jan
Early Registration Ends	2 Feb
Hotel Reservation Deadline	5 Feb

About COIMG XXIV

COIMG Program

For COIMG Authors

COIMG History/Proceedings

Computational Imaging XXIV Program

SYMPOSIUM PROGRAM AND SYMPOSIUM-WIDE EVENTS

[Open the Interactive EI2026 Program](#)

This version lets you search for papers, view authors and abstracts, and add them to your calendar.

[View the Overall EI2026 Program](#)

This version lets you see all the papers that are happening at the same time each day.

[EI2026 Plenary Speakers](#)

You don't want to miss these presentations from key experts in the imaging community, at 14:00 in Grand Peninsula D on the following three days:

- **Monday, Mar 2:** Trust and Truth in the Age of Deep Fakes, Hany Farid, Professor, University of California, Berkeley
- **Tuesday, Mar 3:** The Drunk at the MicroLED Lamppost, Nikhil Balram, Mojo Vision
- **Wednesday, Mar 4:** Vera C. Rubin Observatory and the Legacy Survey in Space and Time, Andrew Peter Rasmussen, Stanford University

Lunches Provided by EI

- **Monday, Mar 2:** Welcome Lunch, 12:30 to 14:00 in The Grove
- **Wednesday, Mar 4:** Poster Session Lunch, 12:20 to 14:00 in The Grove

Happy Hour/Demo Session

IMPORTANT DATES	
Events	Careers
Demonstration Applications Due	12 Feb
Symposium Begins	1 March
Publications	23
Non-Fast Track Proceedings	March
Manuscripts Due	
Standards	

Tuesday, Mar 3: Please join us for drinks and technology demonstrations in the Grand Peninsula Foyer at 17:30 - 19:00.

Poster Session

Wednesday, Mar 4: Come see more than 30 poster papers, chat with their authors, and enjoy lunch in The Grove from 12:20 to 14:00.

MONDAY 2 MARCH 2026

Superresolution

Session Chair: Emma Reid, Oak Ridge National Laboratory

08:30 - 10:30

Grand Peninsula C

08:30

COIMG-121

Deep learning-based super-resolution for X-ray computed tomography in additive manufacturing, *Obaidullah Rahman, Oak Ridge National Laboratory (US); Haley Duba-Sullivan, Oak Ridge National Laboratory (US); Amirkoushyar Ziabari, Oak Ridge National Laboratory (US)* [[view abstract](#)]

08:50

COIMG-123

Fixed-basis low-rank tensor approximation for the fusion of hyperspectral and multispectral imagery, *James Fowler, Mississippi State University (US)* [[view abstract](#)]

09:10

COIMG-122

Constrained conditional denoising diffusion for hyperspectral-multispectral fusion, *James Fowler, Mississippi State University (US)* [[view abstract](#)]

09:30

COIMG-119

Shedding light on the night: Multi-modal super-resolution for NTL imagery, *Haley Sullivan, Oak Ridge National Lab; Tony Allen, ; Emma Reid,* [[view abstract](#)]

09:50

COIMG-120

The double-edged sword of data-driven super-resolution: Adversarial super-resolution models, *Haley Duba-Sullivan, Oak Ridge National Laboratory; Purdue University (US); Steven Young, Oak Ridge*

National Laboratory; Emma Reid, Oak Ridge National Laboratory [\[view abstract\]](#)

Wave-Based Scientific Imaging (Joint Session with Machine Learning for Scientific Imaging)

15:30 - 16:30

Grand Peninsula C

15:30

MLSI-301

Coherent computational imaging with synthetic waves, Florian Willomitzer, University of Arizona (US)

[\[view abstract\]](#)

15:50

MLSI-302

Generative AI and pre-trained foundation models for seismic imaging and interpretation, Nori

Nakata, Berkeley Lab (US) [\[view abstract\]](#)

16:10

MLSI-303

A CNN workflow for stochastic seismic property estimation, Haibo Di, SLB (US) [\[view abstract\]](#)

Computational Imaging: Why Hire?

Session Chair: Stanley Chan, Purdue University

16:30 - 17:30

Grand Peninsula C

16:30

COIMG-124

Value, the value of your value and how to monetize it - engineering a successful and rewarding career, Sergiu Goma, Alkemista Tech [\[view abstract\]](#)

16:50

COIMG-125

Translating PhD brilliance into industry impact: Crucial skills in the AI era, Ying Chen Lou, Google

[\[view abstract\]](#)

17:10

COIMG-126

The new imaging stack: Essential skills for the generative AI era, Hossein Talebi, Google Inc. [[view abstract](#)]

17:30

COIMG-Panel2

Finding Jobs in the AI Singularity, Stanley Chan, Purdue University (US) [[view abstract](#)]

TUESDAY 3 MARCH 2026

Generative AI for Imaging (Joint Session with Machine Learning for Scientific Imaging)

08:30 - 09:30

Grand Peninsula C

08:30

MLSI-304

Metric 3D human pose estimation via CAD-calibrated monocular depth, Sakthivel Sivaraman, Nvidia (US) [[view abstract](#)]

08:50

MLSI-305

Self-supervised learning for spatiotemporally scalable computational imaging, Kevin Zhou, University of Michigan (US) [[view abstract](#)]

Imaging Pipelines I (Joint Session with Machine Learning for Scientific Imaging)

09:30 - 10:30

Grand Peninsula C

09:30

COIMG-127

Computational imaging for aberration correction, Laura Waller, UC Berkeley (US) [[view abstract](#)]

09:50

COIMG-128

Efficient-coding--inspired in-sensor compression, Yuhao Zhu, University of Rochester (US) [[view abstract](#)]

Multi-Modal Imaging

Session Chair: Mel White, Rice University

11:00 - 12:20

Grand Peninsula C

11:00

COIMG-130

Fusing optics and acoustics: From data integration to physics-level modulation, *Adithya Pediredla, Dartmouth University (US)* [[view abstract](#)]

11:20

COIMG-131

Spatial reasoning: Can AI understand the 3D world?, *Achuta Kadambi, UCLA (US)* [[view abstract](#)]

11:40

COIMG-132

Unified imaging approaches with event-based and frame-based sensors, *Joseph Cox, Air Force Research Laboratory (US)* [[view abstract](#)]

12:00

COIMG-173

Multi-modal computational 3D imaging for specular surfaces, *Jiazhang Wang, University of Arizona (US); Florian Willomitzer,* [[view abstract](#)]

Semiconductor Metrology and Computational Lithography (Joint Session with Machine Learning for Scientific Imaging)

15:30 - 17:30

Grand Peninsula C

15:30

COIMG-137

It's just flat: Optimization landscape of inverse lithography, *Stanley Chan, Purdue University (US)* [[view abstract](#)]

16:50

COIMG-138

Advancing non-destructive evaluation in electronics: 3D X-ray microscopy and deep learning for failure analysis and quality assurance, *Herminso Villarraga-Gomez, Zeiss (US)* [[view abstract](#)]

17:10

COIMG-166

Fast X-ray micro- and nano-laminography imaging of integrated circuits at the upgraded Advanced Photon Source, *Viktor Nikitin, Argonne National Laboratory (US)* [[view abstract](#)]

WEDNESDAY 4 MARCH 2026

Wavefront Estimation and Imaging I

08:30 - 10:30

Grand Peninsula C

08:30

COIMG-140

ReVAR: A statistical simulation algorithm for aero-optic phase screens, *Jeffrey Utley, Purdue University (US); Gregory Buzzard, Purdue University (US); Charles Bouman, Purdue University (US); Matthew Kemnetz, Air Force Institute of Technology (US)* [[view abstract](#)]

08:50

COIMG-141

Wind tunnel tomographic wavefront sensing simulations, *Karl Weisenburger, Purdue University (US); Gregory Buzzard, Purdue University (US); Charles Bouman, Purdue University (US); Matthew Kemnetz, Air Force Institute of Technology (US)* [[view abstract](#)]

09:10

COIMG-142

Split-step phase retrieval: Recovering layered phase screens, *Nicholas Chimitt, Purdue University (US)* [[view abstract](#)]

09:30

COIMG-143

Rapid wavefront shaping using an optical gradient acquisition, *Anat Levin, Technion (Israel)* [[view abstract](#)]

09:50

COIMG-144

Consensus multi-image super resolution, *John Mulcahy-Stanislawczyk, Sandia National Laboratories (US); Amber Dagel, Sandia National Laboratories (US); Kelvin Lee, Sandia National Laboratories (US); Suyeon Shin, Sandia National Laboratories (US); Eric Shields, Sandia National Laboratories (US); Yufang*

Sun, Purdue University (US); Charles Bouman, Purdue University (US); Gregory Buzzard, Purdue University (US) [[view abstract](#)]

Wavefront Estimation and Imaging II

11:00 - 12:00

Grand Peninsula C

11:00

COIMG-145

Digital adaptive optics for reflective coherent imaging of extended objects, Casey Pellizzari, US Air Force Academy (US); David Strong, Strong Inc.; Tyler Hardy; Christopher Metzler; Mark Spencer [[view abstract](#)]

11:20

COIMG-146

How asymmetric should a pupil be? Design trade-offs for single measurement wavefront estimation, Ali Almualllem, Purdue University (US); Nicholas Chimitt, Purdue University; Stanley Chan, Purdue University [[view abstract](#)]

11:40

COIMG-147

Reflective synthetic aperture via deep image prior, Gordon Hageman, The University of Arizona (US); Andre Van Rynbach, AFRL; David Brady, [[view abstract](#)]

Neutron Imaging I

Session Chair: Shimin Tang, Oak Ridge National Laboratory

12:00 - 12:40

Grand Peninsula C

12:00

COIMG-148

Diffusion prior regularized implicit neural representation for neutron CT reconstruction of concrete microstructures, Maliha Hossain, Oak Ridge National Laboratory (US); Haley Sullivan, Oak Ridge National Laboratory; Singanallur Venkatakrisnan, Oak Ridge National Laboratory (US); Timofey Efimov, Oak Ridge National Laboratory; Patxi Fernandez-Zelaia, Oak Ridge National Laboratory (US); Amir Ziabari, Oak Ridge National Laboratory (US) [[view abstract](#)]

12:20

COIMG-149

Bringing virtual reality into the neutron tomography workflow, Leslie Butler, Louisiana State University (US) [[view abstract](#)]

Neutron Imaging II

Session Chair: Shimin Tang, Oak Ridge National Laboratory

15:30 - 17:30

Grand Peninsula C

15:30

COIMG-151

COIMG KEYNOTE: Advanced materials characterization via neutron resonance imaging (NRI) and spectroscopy (NRS) at LANSCE, Tsviki Hirsh, Soreq Nuclear Research Center (Israel); Adrian Losko, Forschungs-Neutronenquelle Heinz Maier-Leibnitz (Germany); Alexander Wolfertz, Forschungs-Neutronenquelle Heinz Maier-Leibnitz (Germany); Jean-Christophe Bilheux, Oak Ridge National Laboratory (US); Tim Jaeger, Technical University Darmstadt (Germany); Chen Zhang, Oak Ridge National Laboratory (US); Nicholas Mendez, Los Alamos National Laboratory (US); Sven Vogel, Los Alamos National Laboratory (US) [[view abstract](#)]

15:50

COIMG-152

Computational methods for neutron resonance imaging with sparse spectral data: R-matrix forward models and regularized reconstruction, Chen Zhang, Oak Ridge National Laboratory (US); Luiz Leal, Oak Ridge National Laboratory (US); Jean-Christophe Bilheux, Oak Ridge National Laboratory (US); Alexander Long, Los Alamos National Laboratory (US); Shimin Tang, Oak Ridge National Laboratory (US); Hassina Bilheux, Oak Ridge National Laboratory (US) [[view abstract](#)]

16:10

COIMG-153

Simultaneous X-ray and neutron radiography using event-mode imaging techniques, Nicholas Mendez, Los Alamos National Laboratory (US); Alexander Long, Los Alamos National Laboratory (US); Patrick Feng, Sandia National Laboratory (US); Tsviki Hirsh, Soreq Nuclear Research Center (Israel); Adrian Losko, Forschungs-Neutronenquelle Heinz Maier-Leibnitz (Germany); Sven Vogel, Los Alamos National Laboratory (US); Charles Leak, Nevada National Security Site (US) [[view abstract](#)]

16:30

COIMG-154

Computational imaging challenges and AI solutions for hyperspectral neutron imaging at VENUS instrument, Shimin Tang, Oak Ridge National Laboratory (US); Kevin Yahne, Oak Ridge National

Laboratory (US); Greg Guyotte, ; Ray Gregory, ; Jean-Christophe Bilheux, ; Hassina Bilheux, [\[view abstract\]](#)

16:50

COIMG-155

Dehydration-rehydration: A training-free machine learning algorithm for reliable hyperspectral denoising, Mohammad Samin Nur Chowdhury, ; Diyu Yang, (US); Shimin Tang, (US); Singanallur Venkatakrishnan, (US); Hassina Bilheux, (US); Gregory Buzzard, (US); Charles Bouman, [\[view abstract\]](#)

Computational Imaging Panel: AI for Science: Approaching the Singularity

18:00 - 19:05

Grand Peninsula C

Panel: AI for Science: Approaching the Singularity, [\[view abstract\]](#)

THURSDAY 5 MARCH 2026

Multimedia

Session Chair: Maggie Zhu, Purdue University

08:30 - 10:30

Grand Peninsula C

08:30

COIMG-156

CompressAI and CompressAI-Vision: Open-source software to evaluate compression methods for humans and machines, Hyomin Choi; Mateen Ulhaq; Fabien Roca, [\[view abstract\]](#)

08:50

COIMG-157

AI-driven video transformation: Compression, understanding, and streaming, Zoe Liu, Visionular Inc (US) [\[view abstract\]](#)

09:10

COIMG-158

MPEG AI technologies and standards, Shan Liu, Tencent (US) [\[view abstract\]](#)

09:30

COIMG-159

On the development of open-source video codecs AV1 and AV2, *Yunqing Wang, Google (US); Urvang Joshi, Google (US); Mohammed Sarwer, Google (US); Jianle Chen, Google (US); Lester Lu, Google (US); Bohan Li, Google (US); Stan Vitvitskyy, Google (US); In-Suk Chong, Google (US); Jingning Han, Google (US); Debargha Mukherjee, Google (US)* [[view abstract](#)]

9:50

COIMG-Panel3

Panel: Software Design and Implementation in Multimedia Technologies, Systems, and Applications, *Maggie Zhu, Purdue University (US)* [[view abstract](#)]

Imaging Pipelines II (Joint Session with Machine Learning for Scientific Imaging)

11:00 - 13:00

Grand Peninsula C

11:00

COIMG-160

3D field of junctions: A noise-robust, training-free structural prior for volumetric inverse problems, *Sara Fridovich-Keil (US)* [[view abstract](#)]

11:20

COIMG-161

Near real-time stitching for a heterogenous camera array, *Adel Al-Ghazwi, University of Arizona, Wyant College of Optical Sciences (US); Gordon Hageman, University of Arizona, Wyant College of Optical Sciences (US); Kimberly Doty, University of Arizona, Wyant College of Optical Sciences (US); David Brady, University of Arizona, Wyant College of Optical Sciences (US)* [[view abstract](#)]

11:40

COIMG-162

Trace2SCAD: Converting images Into parametric OpenSCAD models, *Henry Dietz, University of Kentucky (US)* [[view abstract](#)]

12:00

COIMG-163

NUTIK: A testbed for functional post-capture manipulation of time and gain, *Paul Eberhart, University of Kentucky (US); Henry Dietz, University of Kentucky (US)* [[view abstract](#)]

12:20

COIMG-164

Arbitrary spatial sampling with the B-FFT for efficient exoplanet imaging simulations, *Jamila Taaki, University of Michigan (US); Farzad Kamalabadi, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign (US); Athol Kembell, Department of Astronomy, University of Illinois at Urbana-Champaign (US); Lia Corrales, Department of Astronomy, University of Michigan (US); Alfred Hero III, Department of Electrical Engineering and Computer Science, University of Michigan (US)* [[view abstract](#)]

12:40

COIMG-165

Parallelizable iterative CT reconstruction, *Sri Raghav Sai Sowmya Seeram, Elmore Family School of Electrical and Computer Engineering, Purdue University, West Lafayette, Indiana (US); Charles Bouman, Elmore Family School of Electrical and Computer Engineering, Purdue University, West Lafayette, Indiana (US); Gregory Buzzard, Department of Mathematics, Purdue University, West Lafayette, Indiana (US)* [[view abstract](#)]

Volumetric X-Ray Imaging

Session Chair: Greg Buzzard, Purdue University

14:00 - 16:00

Grand Peninsula C

14:00

COIMG-167

Advances in deep learning-based image reconstruction, resolution recovery, and artefact removal for X-ray microscopy, *Matthew Andrew, Carl Zeiss; Faguo Yang, ; Moran Xu, Carl Zeiss (US); Shiqi Xu, Carl Zeiss (US); Tianqi Zhang, Carl Zeiss (US); Zeyu Zhou, Carl Zeiss (US); Andriy Andreyev, Carl Zeiss* [[view abstract](#)]

14:20

COIMG-168

Fast large-scale model-based iterative tomography via exploiting mathematical structure, hierarchical optimization, smart initialization, and distributed GPU computing, *Dinesh Kumar, Lawrence Berkeley National Laboratory (US); Jeffrey Donatelli, Lawrence Berkeley National Laboratory (US)* [[view abstract](#)]

14:40

COIMG-169

Science at the speed of light: New computational infrastructure for performing real-time analyses on tomographic imaging data at the Advanced Light Source, *Elizabeth Clark, Lawrence Berkeley National Laboratory (US); Pradyumna Elavarthi, Lawrence Berkeley National Laboratory, University of Cincinnati; Alex Hexemer, Lawrence Berkeley National Laboratory; Tanny Chavez, Lawrence Berkeley National Laboratory; Wiebke Koepp, Lawrence Berkeley National Laboratory; Petrus Zwart, Lawrence*

Berkeley National Laboratory; David Abramov, Lawrence Berkeley National Laboratory; Dylan McReynolds, Lawrence Berkeley National Laboratory; Sam Welborn, Lawrence Berkeley National Laboratory; Lee Yang, Lawrence Berkeley National Laboratory; Damon English, Lawrence Berkeley National Laboratory; Kuldeep Chawla, Lawrence Berkeley National Laboratory; Dilworth Parkinson, Lawrence Berkeley National Laboratory (US) [[view abstract](#)]

15:00

COIMG-170

Accurate reconstruction of plastic metal objects in X-ray CT imaging, *Ziyun Li, (US); Mingqi Yang ; Vijay Sharma ; John Toaquiza; Javad Eshraghi; Gregery Buzzard; Charles Bouman, Purdue University (US)* [[view abstract](#)]

15:20

COIMG-133

Multimodal volumetric imaging with a high-resolution plenoptic hard X-ray laboratory system, *Shiqi Xu, Zeiss (US)* [[view abstract](#)]

15:40

COIMG-174

Characterization of temporal dynamics of large aperture and deformable mirrors, *Vladimir Markov, AS&T (US)* [[view abstract](#)]