



28th Annual CASIS Workshop 2024		
Day 1 - Wednesday, June 5		
Time		Program
Start	End	
8:00	8:45	Registration
8:45	9:00	Welcome CASIS Director Ruben Glatt (LLNL)
Remote and Non-invasive Sensing [Sean K. Lehman]		
9:06	9:24	CMOS Readout Integrated Circuit and Energy Harvester Brad Funsten (LLNL)
9:24	9:42	Optimal band selection for target detection with a LWIR multispectral imager Mike Zelinski (LLNL)
9:42	10:00	Shooter Alarm System Sean K. Lehman (LLNL)
10:00	10:30	Coffee Break + Poster Session
Non-Destructive Evaluation [Seemeen Karimi]		
10:30	10:48	3D Characterization of Manufactured Features and Process-Induced Porosity Andrew Townsend (LLNL)
10:48	11:06	Segmentation of Low-Contrast X-ray Computed Tomography Microstructures for High Explosives Brian Rogers (LLNL)
11:06	11:24	Tender X-ray tomography at the Advanced Light Source Jean-Baptiste Forien (LLNL)
11:24	11:42	High Energy Computed Tomography for Inspection of Air Cargo Joseph Bendahan (LLNL)
11:42	12:00	An improved reconstruction technique for interior X-ray computed tomography Shabnam Semnani (UC San Diego)
12:00	13:00	Lunch Break sponsored by IEEE Signal Processing Society
13:00	13:18	Automatic jumpoff detection from PDV signal Paul Munger (LLNL)
13:18	13:36	In-situ microwave characterization of cellular fluidic systems Saptarshi Mukherjee (LLNL)
13:36	13:54	Novel Linear Phase-Retrieval Methods for Lab Phase-CT systems Venkatesh Sridhar (LLNL)
Energy Applications [Jhi-Young Joo]		
13:54	14:12	Optimal PMU Placement for State Estimation with Grid Parameter Uncertainty Irabel Romero (UC Merced)
14:12	14:30	Spectral Correlation Function Based Detection Method for Grid-Signal Distortions Ali Riza Ekti (ORNL) & Ozgur Alaca (ORNL)
14:30	15:00	Coffee Break + Poster Session
National Ignition Facility [Anne Garafalo]		
15:00	15:18	Lights, cameras, digital image correlation at the National Ignition Facility! Charles Brown (LLNL)
15:18	15:36	Enhancing NLTE Models for ICF Simulation through ML-Based Dimension Reduction and SR Min Sang Cho (LLNL)
15:36	15:54	Multi-Frame Gated X-Ray Imager (MGXI) for Fast Hard X-Ray Imaging Mary Ann Mort (UC Davis)
15:54	16:12	Integration of High-Fidelity Pulse Shaping to NIF Integrated Computer Control Systems Lei Wang (LLNL)
16:12	16:30	Computer Tomography of NIF Capsules Joseph Bendahan (LLNL)
16:30	17:00	Viewing ignition through an x-ray focus Bernard Kozioziemski (LLNL)
17:30	...	Closing



28th Annual CASIS Workshop 2024		
Day 2 - Thursday, June 6		
Time		Program
Start	End	
8:00	8:30	Registration
8:30	8:48	Welcome CASIS Director Ruben Glatt (LLNL)
Machine Learning / Artificial Intelligence [Brian Bartoldson, Shusen Liu]		
8:48	9:06	Computational 3D compact imagers using a single layer of microlens array Weijian Yang (UC Davis)
9:06	9:24	A tour of a flexible and easy-to-use machine learning automation pipeline Pankaj Jha (LLNL)
9:24	9:42	AI-Powered Mining of Negative Associations in Medical Databases Raja Rao Budaraju (Oracle)
9:42	10:00	Seeing Objects in a Cluttered World: Computational Objectness from Motion in Video Alexander Moore (LLNL)
10:00	10:30	Coffee Break + Poster Session
10:30	10:48	Towards optimized training distribution for photo-to-face models Igor Borovikov (Electronic Arts)
10:48	11:06	Designing Novel Augmentation Strategies for Data-Efficient Finetuning of Object Detection Models Kowshik Thopalli (LLNL)
11:06	11:24	Refining Pre-trained Model Weights: Harnessing the Power of Neural Representation Hongjun Choi (LLNL)
11:24	11:42	Curiosity Driven Multi-Agent Transformer Arthur Williams (LLNL)
11:42	12:00	Revisiting Adversarial Training at Scale Zeyu Wang (UC Santa Cruz)
12:00	13:00	Lunch Break sponsored by IEEE Computer Society
13:00	13:18	Brain-Computer-Interfaces Mohit Agarwal (Google)
13:18	13:36	Angiogram Video Prediction: Building a Normal Distribution for predicting blood vessel vasculature Prem Gorde (UC Davis)
13:36	13:54	An Accurate Failure Characterization Framework for Deep Regressors Vivek Sivaraman Narayanaswamy (LLNL)
13:54	14:12	Graph Neural Networks for Solid Mechanics Simulation Bo Lei (LLNL)
14:12	14:30	Automated Ultrasonic Peak Detection using Continuous Wavelet Transform and Detection Theory Steven Kenney (LLNL)
14:30	15:00	Coffee Break + Poster Session
Quantum Sensing & Quantum Computing [Audrey Eshun, Kristin Beck]		
15:00	15:18	A quantum-network test bed over deployed fiber at Berkeley Erhan Saglamyurek (LBNL)
15:18	15:36	3D Quantum Microscope Dominique Davenport (LLNL)
15:36	15:54	Enhancing Axion Dark Matter Searches with Quantum-Limited Amplifiers Nick Du (LLNL)
15:54	16:12	Quantum vs. Classical correlations in ghost imaging Ted Laurence (LLNL)
16:12	16:30	Simulating noise on a quantum processor: a qubit and resonant two-level system bath Yaniv Rosen (LLNL)
16:30	...	Closing

