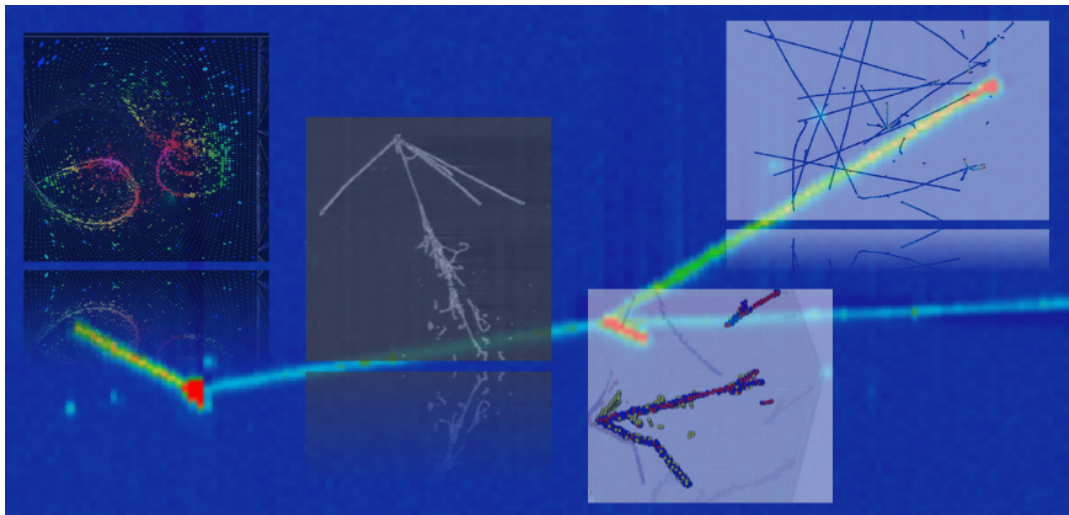


Session Program

15-19 Jun 2026



Neutrino Physics and Machine Learning 2026

Infrastructure: Advanced Simulation & Reconstruction Tools

UC Irvine, The Interdisciplinary Science and Engineering Building
419 Physical Sciences Quad, Irvine, CA 92697

Wednesday 17 June

13:30

Infrastructure: Advanced Simulation & Reconstruction Tools

Session |

Location: UC Irvine, The Interdisciplinary Science and Engineering Building , 419 Physical Sciences Quad, Irvine, CA 92697

13:30–13:45

Improving track reconstruction in IceCube with NN based photon propagation PDFs

Speaker

Rishi Babu

13:45–13:50 **Q/A**

13:50–14:10 **Detector calibration: control samples to differentiable simulation**

Speaker

Yifan Chen

14:10–14:15 **Q/A**

14:15–14:35

Sparse Neutrino Detector Simulation and Signal Processing on GPUs: An Example from the DUNE Near Detector

Speaker

Yousen Zhang

14:35–14:40 **Q/A**

14:40–15:00 **Coffee**

15:00–15:15

Simphony: GPU-Accelerated Optical Simulation with MC Truth Propagation for Neutrino Detectors

Speaker

Gabor Galgoczi

15:15–15:20 **Q/A**

15:20–15:50

JAXTPC: A Fast, Differentiable Simulation of Time Projection Chambers

Speaker

Omar Alterkait

15:50–16:00 **Q/A**

16:00