

Stanford



Ryan Coffee

Senior Scientist, SLAC National Accelerator Laboratory

Bio

BIO

Ryan earned his Bachelor of Arts in Philosophy and Bachelor of Science in Physics from the University of Arkansas followed by a PhD in Atomic, Molecular and Optical (AMO) Physics from the University of Connecticut. He joined the PULSE Institute at Stanford/SLAC in 2006 and led the first laser pumped, x-ray probed experiment at the Linac Coherent Light Source (LCLS) in 2009. Since then, he has become Senior Research Scientist in PULSE and LCLS with an emphasis on AMO science and novel instrumentation and the requisite computational methods for streaming data processing at the sensor edge, in particular targeting the million frames per second LCLS-II. In that context he has been a core member of the SLAC AI Initiative since its inception with particular emphasis on Machine Learning for real-time information extraction. With projects ranging from x-ray spectroscopy in molecules, ultrafast materials response, radiographic medical imaging, and tokamak plasma fusion, he has become an adamant proponent of data and model marketplaces for cross-domain innovation sharing with built in provenance and value tracking for an intelligent adaptive data and model retention.

CURRENT ROLE AT STANFORD

Sr. Staff Scientist at SLAC National Accelerator Laboratory

INSTITUTE AFFILIATIONS

- Member, Stanford PULSE Institute

EDUCATION AND CERTIFICATIONS

- PhD, University of Connecticut , AMO Physics (2006)
- MS, University of Connecticut , Physics (2001)
- BS, University of Arkansas , Physics (1999)
- BA, University of Arkansas , Philosophy (1999)