Stanford



Alex Halavanau

Lead Scientist, Accelerator

Bio

BIO

Following the completion of my PhD at Northern Illinois University, I joined the Accelerator Division at SLAC National Accelerator Laboratory, where I contribute to advancing the frontiers of X-ray free-electron laser (XFEL) science. My research focuses on innovative X-ray generation techniques, including self-seeding, cavity-based XFELs, and amplified spontaneous emission. I am passionate about solving complex, multifaceted challenges and am currently developing several simulation packages for nonlinear X-ray emission, X-ray optics, and dynamical diffraction.

CURRENT ROLE AT STANFORD

Building future x-ray sources

EDUCATION AND CERTIFICATIONS

- PhD, Northern Illinois University , Physics (2018)

PERSONAL INTERESTS

Cross-country skiing, simracing

Professional

PROFESSIONAL INTERESTS

X-ray free electron lasers, nonlinear dynamics, mathematical physics