

Nicholas Matlis

Nicholas Matlis received his Ph.D. in 2006 from the University of Texas at Austin where he captured the snapshots of elusive plasma waves that drive laser-plasma accelerators (LPAs) for the first time using Frequency Domain Holography. He subsequently spent 8 years at Lawrence Berkeley National Laboratory where he continued working on the development of novel diagnostics and controls for LPAs, including colliding-pulse injection and demonstration for the first time of LPA staging. In 2015 he joined the Ultrafast Optics and X-rays group in the Center for Free Electron Laser Science at DESY where he is the leader of the experimental team implementing the AXSIS project which aims at pioneering THz-powered electron acceleration to develop a compact attosecond x-ray light source and has led to multiple records in THz generation and electron acceleration. In January of 2025, Nicholas will join the physics department at the Arizona State University as an associate professor to pursue research combining advanced accelerators and high-energy THz sources for investigating the dynamics and structure of matter.