

BIOGRAPHY FOR SCOTT C. HSU

Dr. Scott C. Hsu is a fusion research scientist in the Physics Division–Plasma Physics Group at Los Alamos National Laboratory (LANL) in Los Alamos, NM. He earned a Ph.D. in Astrophysical Sciences (Program in Plasma Physics) in 2000 from Princeton University, where he made experimental measurements of ion heating during magnetic reconnection, which is an ubiquitous process in both laboratory fusion and astrophysical plasmas responsible for converting energy from magnetic field energy to plasma kinetic energy. Subsequently, he was awarded a DOE Fusion Energy Postdoctoral Fellowship to pursue research at the California Institute of Technology on an alternate magnetic fusion concept called the spheromak. There, he also became a pioneer in connecting the physics of astrophysical jets to those studied in laboratory plasma experiments. In 2002, he went to LANL as a Frederick Reines Distinguished Postdoctoral Fellow to work on magnetized target fusion (aka magneto-inertial fusion or MIF), which is a higher-density and pulsed alternate fusion approach, and also basic laboratory plasma physics and plasma astrophysics. More recently at LANL, Scott has also branched out into research in high-energy-density (HED) physics and inertial confinement fusion (ICF). Presently, Scott is lead principal investigator for a multi-institutional plasma-jet-driven MIF research project, including primary partner HyperV Technologies Corp., sponsored by the DOE Advanced Research Projects Agency–Energy (ARPA-E) under its ALPHA (Accelerating Low-Cost Plasma Heating and Assembly) program. He also conducts experiments and HED research on the OMEGA laser facility at the Laboratory for Laser Energetics at the University of Rochester. Scott is the author or co-author of 60 refereed research publications in plasma and fusion science. In 2002, Scott was a co-recipient of the American Physical Society (APS) Award for Excellence in Plasma Physics Research, and in 2009, he served as a subpanel member in the DOE’s Basic Research Needs Workshops for both Magnetic Fusion Energy Sciences and High Energy Density Laboratory Physics. He was formerly an executive committee member of the APS Topical Group in Plasma Astrophysics (2004–2007), and is presently a member of the Exploratory Plasma Research (EPR) executive committee (since 2012).