Tammy Ma



Dr. Tammy Ma leads the High-Intensity Laser High-Energy-Density (HED) Science Element in the Advanced Photon Technologies (APT) Program within NIF and Photon Sciences at Lawrence Livermore National Laboratory (LLNL). This group pioneers use of the highest intensity lasers in the world to investigate novel states of matter, generate energetic beams of particles, study laboratory astrophysics, and explore fusion physics.

She currently also serves as the Deputy Director for LLNL's Laboratory Directed Research & Development (LDRD) Program.

Tammy earned her B.S. degree in Aerospace Engineering from Caltech in 2005, and her M.S. in 2008 and Ph.D. in 2010 both from the University of California, San Diego. Since joining LLNL, she has led many inertial confinement fusion experiments on the NIF, developed new x-ray diagnostics, and chaired the Lab-Wide LDRD program funding highly innovative research.

She has authored or co-authored over 185 refereed journal publications, and currently sits on the Fusion Energy Sciences Advisory Committee (FESAC), providing advice to the U.S. Department of Energy's Office of Science on complex scientific and technological issues related to fusion energy and plasma research.

Tammy was the recipient of the 2013 Presidential Early Career Award for Science and Engineering (PECASE), the 2016 Stix Award for Outstanding Early Career Contributions to Plasma Research from the American Physical Society for her work in quantifying hydrodynamic instability mix in ICF implosions, a 2018 DOE Early Career Research Award, and the 2021 Fusion Power Associates Excellence in Fusion Engineering Award. She was also named 2019 Woman of the Year for the California 16th Assembly District for her commitment to education, and to mentoring and encouraging young students who share her passion for science. She is a Fellow of the American Physical Society.