

TROY A. CARTER
 Professor of Physics
 Dept. of Physics and Astronomy, UCLA
 Box 951547, 4-909 PAB
 Los Angeles, CA 90095-1547
 (310) 825-4770 (fax: (310) 825-4057)
 tcarter@physics.ucla.edu

PROFESSIONAL PREPARATION	NORTH CAROLINA STATE UNIVERSITY B.S. <i>summa cum laude</i> in Physics, elected to Phi Beta Kappa, May 1995 B.S. <i>summa cum laude</i> in Nuclear Engineering, May 1995 PRINCETON UNIVERSITY M.A. in Astrophysical Sciences, Program in Plasma Physics, Nov. 1997 Ph.D. in Astrophysical Sciences, Program in Plasma Physics, Nov. 2001
APPOINTMENTS	Professor of Physics, UCLA July 2011-present Associate Professor of Physics, UCLA July 2008-June 2011 Visiting Scholar, Merton College, Oxford University Summers 2009, 2010 Assistant Professor of Physics, UCLA July 2002-June 2008 DOE Fusion Energy Postdoctoral Fellow, UCLA Sept 2001-June 2002
AWARDS & HONORS	APS DPP Distinguished Lecturer 2009-present UCLA Physics & Astronomy Outstanding Teaching Award 2003-2008 NSF CAREER Award 2006 APS Excellence in Plasma Physics Research Award 2002 DOE Junior Faculty Development Award in Plasma Physics 2002 Outstanding Student Paper, SPA Section, AGU Spring Meeting 2000,2001 NASA Graduate Student Researchers Program Fellowship 1998-2001 National Science Foundation Graduate Fellowship 1995-1998 Princeton University Merit Award 1995 DOE Magnetic Fusion Technology Fellowship 1995
FIVE RELATED PUBLICATIONS	M. V. Umansky, P. Popovich, T. A. Carter, B. Friedman, and W. M. Nevins, "Numerical simulation and analysis of plasma turbulence the Large Plasma Device," <i>Phys. Plasmas</i> 18 , 055709 (2011) . P. Popovich, M. Umansky, T.A. Carter, and B. Friedman, "Modeling of plasma turbulence and transport in the Large Plasma Device," <i>Phys. Plasmas</i> 17 , 122312 (2010). T.A. Carter and J.E. Maggs, "Modifications of turbulence and turbulent transport associated with a bias-induced confinement transition in the Large Plasma Device," <i>Phys. Plasmas</i> 16 , 012304 (2009). D.C. Pace, M. Shi, J.E. Maggs, G.J. Morales, and T.A. Carter, "Exponential frequency spectrum in magnetized plasmas," <i>Phys. Rev. Lett.</i> 101 , 085001 (2008). T.A. Carter, "Intermittent turbulence and coherent structure generation in a linear magnetized plasma," <i>Phys. Plasmas</i> 13 , 010701 (2006).

Other Significant Publications D.W. Auerbach, T.A. Carter, S. Vincena, and P. Popovich, "Control of gradient-driven instabilities using shear Alfvén beat waves," Phys. Rev. Lett. **105**, 135005 (2010).

A. E. White, L. Schmitz, G. R. McKee, C. Holland, W. A. Peebles, T. A. Carter, M. W. Shafer, M. E. Austin, K. H. Burrell, J. Candy, J. C. DeBoo, E. J. Doyle, M. A. Makowski, R. Prater, T. L. Rhodes, G. M. Staebler, G. R. Tynan, R. E. Waltz, and G. Wang, "Measurements of core electron temperature and density fluctuations in DIII-D and comparison to nonlinear gyrokinetic simulations," Phys. Plasmas **15**, 015166 (2008).

T.A. Carter, B. Brugman, P. Pribyl, and W. Lybarger, "Laboratory observation of a nonlinear interaction between shear Alfvén waves," Phys. Rev. Lett. **96**, 155001 (2006).

T.A. Carter, H. Ji, F. Trintchouk, M. Yamada, and R.M. Kulsrud, "Measurement of lower-hybrid drift turbulence in a reconnecting current sheet," Physical Review Letters **88**, 015001 (2002).

M. Yamada, H. Ji, S.C. Hsu, T.A. Carter, R. Kulsrud, Y. Ono, F. Perkins, "Identification of Y-Shaped and O-Shaped Diffusion Regions During Magnetic Reconnection in a Laboratory Plasma," Physical Review Letters **78**, 3117 (1997).

SYNERGISTIC ACTIVITIES Served as referee for journals (Physics Reports, Physical Review Letters, Physics of Plasmas, Plasma Physics and Controlled Fusion, Journal of Geophysical Research, Geophysical Research Letters, Physics Letters A, Reviews of Scientific Instruments) and reviewer for proposals to funding agencies (DOE, NSF, CRDF, NASA)

Member of Executive Committees: University Fusion Association (2005-2007), APS Division of Plasma Physics (2007-2010)

Member of Program Advisory Committees: DIII-D Tokamak (2009-2011), Center for Magnetic Self-Organization Program (2009-present), Alcator C-Mod Tokamak (2010-Present)

Committee of Visitors, DOE Office of Fusion Energy Sciences (2009)

Council Member, US Burning Plasma Organization (2010-present)

COLLABORATORS **Recent Collaborators:** D. Brower (UCLA), S.C. Cowley (CCFE), N. Crocker (UCLA), D. D'Ippolito (Lodestar), E. Doyle (UCLA), W. Gekelman (UCLA), M. Gilmore (UNM), W. Heidbrink (UCI), W. Horton (UT Austin), G. Howes (U. Iowa), J.E. Maggs (UCLA), R. McWilliams (UCI), G.J. Morales (UCLA), W.A. Peebles (UCLA), T. Rhodes (UCLA), L. Schmitz (UCLA), F. Skiff (U. Iowa), G. Tynan (UCSD), M. Umansky (LLNL)

Graduate Advisors: H. Ji, R.M. Kulsrud, M. Yamada (Princeton)

Current Graduate Students: D. Auerbach, B. Freidman, J. Hillesheim, M. Martin, D. Schaffner, J. Zhang

Former Postdocs: P. Popovich (Limat Capital, Zurich)

Former Graduate Students: B. Brugman (Alliance Bernstein, NY), D.C. Pace (West Virginia University), A.E. White (MIT), T. Yates (Self-employed, AL)