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FIRST-AUTHOR/CO-AUTHOR PUBLICATIONS

Laboratory sources of turbulent plasma: a unique MHD plasma wind tunnel. M. R. Brown and D. A. Schaffner. *Plasma Sources and Science Technology*. **23** 063001 (2014).

Temporal and Spatial Turbulent Spectra of MHD Plasma and an Observation of Variance Anisotropy, D.A. Schaffner, M.R. Brown and V.S. Lukin. *The Astrophysical Journal* **790** 126 (2014).

Observation of turbulent intermittency scaling with magnetic helicity in an MHD plasma wind tunnel, D.A. Schaffner, A. Wan and M.R. Brown. *Physical Review Letters* **112** 165001 (2014).

Turbulence analysis of an experimental flux rope plasma. D.A. Schaffner, V.S. Lukin, A. Wan, M.R. Brown. *Plasma Physics Controlled Fusion* **56** 064003 (2014)

Turbulence and transport suppression scaling with flow shear on the Large Plasma Device. D.A. Schaffner, T.A. Carter, G.D. Rossi, D.S. Guice, J.E. Maggs, S. Vincena, and B. Friedman. *Physics of Plasmas* **20** 055907 (2013).

Modification of Turbulent Transport with Continuous Variation of Flow Shear in the Large Plasma Device. D.A. Schaffner, T.A. Carter, G.D. Rossi, D.S. Guice, J.E. Maggs, S. Vincena and B. Friedman. *Physical Review Letters* **109**, 135002 (2012).

OTHER PUBLICATIONS

Nonlinear instability in simulations of Large Plasma Device turbulence. B. Friedman, T. A. Carter, M. V. Umansky, D. Schaffner, and I. Joseph. *Physics of Plasmas* **20** 055704 (2013).

Energy dynamics in a simulation of LAPD turbulence. B. Friedman, T. A. Carter, M. V. Umansky, D. Schaffner, and B. Dudson. *Physics of Plasmas* **19** 102307 (2012).

Sheared-flow induced confinement transition in a linear magnetized plasma. S. Zhou, W. W. Heidbrink, H. Boehmer, R. McWilliams, T. A. Carter, S. Vincena, B. Friedman, and D. Schaffner. *Physics of Plasmas* **19** 012116 (2012).

Diamond pixel modules. D. Asner et al, The RD42 Collaboration. *Nuclear Instruments and Methods in Physics Research A: Accelerators, Spectrometers, Detectors and Associated Equipment* 636, Issue 1, Supplement 21, S125-S129 (2011).

Absorption of fast waves at moderate to high ion cyclotron harmonics on DIII-D. R.I. Pinsker, M. Porkolab, W.W. Heidbrink, Y.Luo, C.C. Petty, R. Prater, M. Choi, D.A. Schaffner, F.W. Baity, E. Fredd, J.C. Hosea, R.W. Harvey, A.P. Smirnov, M. Murakami and M.A. Van Zeeland. *Nuclear Fusion* **46** S416-S424 (2006).

PRESENTATIONS

Invited Talk. *MHD Turbulence Analysis of a Relaxing Spheromak in a Plasma Wind Tunnel*. Workshop on Exploratory Topics in Plassma and Fusion Research (EPR) and US-Japan Compact Torus (CT) Workshop. Madison, WI. August 2014.

Contributed Oral. *Turbulence Analysis of an MHD wind-tunnel*. Center for Magnetic Self-Organization (CMSO) General Meeting. Santa Fe, NM. March 2014.

Seminar. *Laboratory Measurements of Turbulence in a Plasma Wind Tunnel*. University of Iowa Plasma Physics Seminar. Iowa City, IA. February 2014.

Seminar. *Turbulence Analysis and an Observation of Intermittency Scaling with Magentic Helicity in an MHD wind-tunnel*. University of Maryland Plasma Physics Seminar. College Park, MD. January 2014

Author Interview Audio Podcast. *Turbulence and transport suppression scaling with flow shear on the Large Plasma Device*. Physics of Plasmas Media: <http://scitation.aip.org/content/aip/journal/pop/info/media>

Contributed Oral. *Turbulence scaling study in an MHD wind tunnel on the Swarthmore Spheromak Experiment*. American Geophysical Union Fall Meeting. San Francisco, CA, December 2013.

Seminar. *Turbulence Analysis and an Observation of Intermittency Scaling with Helicity on the SSX*. Center for Magnetic Self-Organization (CMSO) Teleconference Seminar. November 2013.

Contributed Oral. *Turbulence Analysis of an Experimental Flux Rope Plasma on the Swarthmore Spheromak Experiment*. New England Space Science Consortium (NESSC) Meeting: Turbulence in Laboratory, Heliospheric, and Astrophysical Plasmas. Boston, MA, October 2013.

Contributed Oral. *Turbulence Scaling Studies on the Swarthmore Spheromak Experiment*. International workshop on the interrelationship between Plasma Experiments in the Laboratory and in Space (IPELS). Hakuba, Japan, July 2013.

Seminar. *Tackling Fusion and Turbulence with Plasma Physics*. Swarthmore College Department of Physics and Astronomy Colloquium Series. Swarthmore, PA, April 2013.

Invited Talk. *Modification of Turbulent Transport with Continuous Variation of Flow Shear in the Large Plasma Device*. American Physical Society Division of Plasma Physics Meeting. Providence, RI, November 2012.

Contributed Oral. *Observation of improved and degraded confinement through driven flow on the LAPD*. EU-US Joint Transport Task Force Meeting. Padua, Italy, August 2012.

Invited Talk. *Observation of improved and degraded confinement through driven flow on the LAPD*. International Workshop for Open Systems-International Work Shop on Plasma Material Interaction Facilities for Fusion Joint Conference. Tsukuba, Japan, July 2012.

Contributed Oral. *Observation of improved and degraded confinement through driven flow on the LAPD*. General Atomics Science Meeting. San Diego, CA, May 2012.

Plenary Talk. *Observation of improved and degraded confinement through driven flow on the LAPD*. U.S. Transport Task Force Workshop. Annapolis, MD, April 2012.

Seminar. *Observation of improved and degraded confinement and reduction of particle flux through driven flow on the LAPD*. UCLA Plasma Seminar Series. Los Angeles, CA, February 2012.

Contributed Oral. *Turbulence and Flow in the Large Plasma Device*. Gyrokinetics in Laboratory and Astrophysical Plasmas Conference at the Isaac Newton Institute of Mathematical Sciences. Cambridge, UK, June 2010.

POSTERS

Turbulence analysis of an MHD Wind Tunnel. Solar Heliospheric & Interplanetary Environment Meeting. Telluride, CO, June 2014.

Turbulence scaling study in an MHD wind tunnel on the Swarthmore Spheromak Experiment. American Physical Society Division of Plasma Physics Meeting. Denver, CO, November 2013.

Mode Analysis and Dynamics of driven rotation on the Large Plasma Device. U.S.-E.U. Joint Transport Task Force Workshop. Santa Rosa, CA, April 2013.

Observation of improved and degraded confinement through driven flow on the Large Plasma Device. American Physical Society Division of Plasma Physics Meeting. Salt Lake City, UT, November 2011.

A spectral analysis for mode identification on LAPD edge turbulence. U.S.-E.U. Joint Transport Task Force Workshop. San Diego, CA, April 2011.

Flows, turbulence, and transport in the Large Plasma Device. American Physical Society Division of Plasma Physics Meeting. Chicago, IL, November 2010.

Studies of flow generation and momentum transport in LAPD. U.S. Transport Task Force Workshop. Annapolis, MD, April 2010.

Investigation of flows in LAPD and their relation to edge turbulence and intermittency. American Physical Society Division of Plasma Physics Meeting. Atlanta, GA, November 2009.

Evaluation of Ion Cyclotron Harmonic Damping on a Non-Maxwellian Distribution Function. American Physical Society Division of Plasma Physics Meeting. Denver, CO, November 2005.

MANUSCRIPTS IN PREPARATION

Spatial correlations in a turbulent MHD laboratory plasma

The SSX MHD Wind Tunnel

Permutation Entropy and Statistical Complexity in SSX and the Solar Wind