MAY 2025

DAVID ANDREW SCHAFFNER

Associate Professor
Department of Physics, Bryn Mawr College
101 North Merion Ave. Bryn Mawr, PA 19010
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Research Webpage: www.brynmawrplasma.com
Google Scholar: https://scholar.google.com/citations?user=99yjIQgAAAAJ&hl=en

RESEARCH

- Investigation of plasma and magnetic turbulence in the laboratory and the heliosphere
- Interaction of complicated magnetic field structures with turbulent plasma
- Exploration and comparison of statistical analysis techniques for understanding physical mechanisms in plasma turbulence

EMPLOYMENT

2022-present	Chair, Dept. of Physics, Bryn Mawr College
2021-present	Associate Professor, Dept. of Physics, Bryn Mawr College
2015-2021	Assistant Professor, Dept. of Physics, Bryn Mawr College
2013-2015	Postdoctoral Researcher, Plasma Physics, Dept. of Physics and Astronomy, Swarthmore College
2009-2013	Graduate Student Researcher, Plasma Physics, Dept. of Physics and Astronomy, UCLA
2007-2009	Graduate Student Researcher, High Energy Physics, Dept. of Physics and Astronomy UCLA
2006-2010	Teaching Assistant, Dept. of Physics and Astronomy, UCLA

HIGHLIGHTED PUBLICATIONS

Measurement of the Taylor scale in a magnetized turbulent laboratory plasma wind-tunnel. C.A. Cartagena-Sanchez, J.M. Carlson, and D.A. Schaffner. Physics of Plasmas. **29** 032305 (2022).

When Cold Radial Migration is Hot: Constraints from Resonant Overlap. K. J. Daniel, D. A. Schaffner, F. McCluskey, C. Fiedler-Kawaguchi, and S. Loebman. Astrophysical Journal. 882 111 (2019).

Possible signatures of dissipation from time-series analysis techniques using a turbulent laboratory MHD plasma. D.A. Schaffner, M.R. Brown, and A. Rock. Physics of Plasmas. **23** 055709 (2016).

Permutation Entropy and Statistical Complexity in SSX and the Solar Wind. P. J. Weck, D. A. Schaffner, M. R. Brown and R. T. Wicks. Phys. Rev. E. **91** 023101 (2015).

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).

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).

GRANTS AND FUNDING - $918,210 AWARDED TO BRYN MAWR COLLEGE TO-DATE

2015 Co-PI, *Plasma Accelerator on the Swarthmore Spheromak Experiment*, Accelerating Low-Cost Plasma Heating and Assembly (ALPHA) program, ARPA-E, DOE (3 years, $577,000 total, $110,000 to BMC)
2017 PI, *Collaborative Research: Analysis of wave mode content in fully turbulent, moderately collisional plasma through laboratory experiment and kinetic simulation, NSF-DOE Partnership*, DOE (3 years, $355,000 total, $150,000 to BMC)
2019 PI, *CAREER: The Bryn Mawr Plasma Laboratory—A Liberal-Arts Centered Facility for Basic Plasma Research and Plasma Science Education,* NSF (5 years, $564,631)
2019 PI, *Collaborative Research: Frameworks: An open source software ecosystem for plasma physics,* NSF (5 years, $2,439,805 total, $187,240 to BMC)
2025 PI, Study of Fast Magnetized Turbulent Plasma Flow Past Obstacles in a Wind-Tunnel Laboratory Experiment, NSF (3 years, $475,490)

Computational Allocations
2018 PI, *Modeling of magnetic turbulence and particle orbits at the Bryn Mawr Plasma Laboratory*, 50,000SU (Estimated Equivalent Value - $1,157.50)
2019 Co-PI, *MHD turbulence and particle orbit simulations using the Dedalus environment*, 472,840SU (Estimated Equivalent Value - $10,946.25)
2021 Co-PI, High velocity merging and particle orbit simulations using the Dedalus environment, 2,200,000SU (Estimated Equivalent Value - $ 26,680.00)

EDUCATION

2006 UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA
B.S. *summa cum laude* in Physics (Minor Mathematics)
Department Highest Honors
2007 UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA
M.S. in Physics
2013 UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA
Ph.D. in Physics

CLASSES TAUGHT

- Sophomore-Level Electromagnetism
- Junior-Level Quantum Mechanics
- Junior-Level Mathematical Methods in the Physical Sciences
- Non-Major, Algebra-Based Introductory Physics (Oscillatory Motion, Waves, E&M) for Undergraduates

- Non-Major, Algebra-Based Introductory Physics (Oscillatory Motion, Waves, E&M) for Bryn Mawr's Postbaccalaureate Premedical Program
- Sophomore-Level Electronics Laboratory
- Sophomore-Level Modern Physics Laboratory
- Introductory Physics Laboratory
- Advanced Experimental Physics
- Emily Balch Seminar: Politics of Science
- Plasma Physics and Fusion

AWARDS AND HONORS

2006-2012 University Fellowship
2007 UCLA Physics and Astronomy Summer Research Mentorship Award
2006 UCLA Graduate Division Chancellor's Prize
2006 UCLA Physics and Astronomy Department Fellowship
2005 National Undergraduate Fellowship
2004 E. Lee Kinsey Award
2002 F.I.R.S.T. Paul Allaire Award

SERVICE AND OUTREACH

Bryn Mawr College and Physics Department Service
Chair of Physics Department 2022-2025
Committee on Libraries, Information and Computing (CLIC) (2023-2026)
Director of Graduate Recruiting and Graduate Advisor, Department of Physics, Bryn Mawr College
Webmaster and content-manager of the Bryn Mawr Physics website: www.brynmawr.edu/physics
Graduate Council of Bryn Mawr College
Committee on Undergraduate Awards and Fellowships of Bryn Mawr College (2016-2019)
Committee of Endowed Lectures of Bryn Mawr College (2019-2022)
Member of four tenure-track search committees for the Physics Dept, Chair of one CNTT search committee(2023), Chair of one TT search committee (2024)
Member of search committee for Director of Science Services, 2023

Plasma Research Community
Chair of ECLIPSE Meeting Organizing Committee April 2024 in Rochester, NY
Elected to APS-DPP Executive Committee as Member-at-Large for 2022-2025
Chair of DPP Subcommittee on Financial Sustainability 2024-2025
Elected as Past-Chair of MagNetUS 2023
Founder of the Small College Plasma Consortium (SCPC), webmaster of the SCPC website
Program Chair, Inaugural MagNetUS Workshop in Madison, WI, 2021
FESAC Long Range Planning Subcommittee Member (2020-present)
APS-DPP Community Planning Project Committee Member (2019-2020)

Elected to University Fusion Association Executive Committee (2019-2022), Chair of UFA Nominating Committee for 2020
DPP Program Committee Member (2018,2025)
DPP Public Information Committee Member (2018-present)
DPP Undergraduate Poster Session Judge (2016, 2017, 2018)
DPP Session Chair (2017, 2018)
Served as referee for Physical Review Letters, Physics of Plasmas, Journal of Plasma Physics, and IEEE Transactions on Plasma Science
Served as panel reviewer for NSF, DOE-FES, DOE-ARPA-E, and NASA
Founding member of the Young APS-DPP Community

FULL BIBLIOGRAPHY

PRIMARY OR SECONDARY AUTHOR PUBLICATIONS *(in reverse chronological order)*

PECCARY: A novel approach for characterizing orbital complexity, stochasticity, and regularity, Sóley Ó. Hyman, Kathryne J. Daniel, David A. Schaffner. Accepted by Astrophysical Journal. 2025.

Measurement of the Taylor scale in a magnetized turbulent laboratory plasma wind-tunnel. C.A. Cartagena-Sanchez, J.M. Carlson, and D.A. Schaffner. Physics of Plasmas. **29** 032305 (2022). DOI: 10.1063/5.0073207

When Cold Radial Migration is Hot: Constraints from Resonant Overlap. K. J. Daniel, D. A. Schaffner, F. McCluskey, C. Fiedler-Kawaguchi, and S. Loebman. Astrophysical Journal. 882 111 (2019). DOI: 10.3847/1538-4357/ab341a. Citations: 6

Possible signatures of dissipation from time-series analysis techniques using a turbulent laboratory MHD plasma. D.A. Schaffner, M.R. Brown, and A. Rock. Physics of Plasmas. **23** 055709 (2016). DOI: 10.1063/1.4948275. Citations: 2

Multifractal and Monofractal Scaling in a Laboratory Magnetohydrodynamic Turbulence Experiment. D.A. Schaffner and M. R. Brown. The Astrophysical Journal. **811** 1 (2015). DOI: 10.1088/0004-637X/811/1/61. Citations: 5

The SSX MHD Wind Tunnel. M. R. Brown and D. A. Schaffner. Journal of Plasma Physics. **81** 345810302 (2015). DOI: 10.1017/S0022377815000227. Citations: 9

Permutation Entropy and Statistical Complexity in SSX and the Solar Wind. P. J. Weck, D. A. Schaffner, M. R. Brown and R. T. Wicks. Phys. Rev. E. **91** 023101 (2015). DOI: 10.1103/PhysRevE.91.023101. Citations: 48

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). DOI: 10.1088/0963-0252/23/6/063001. Citations: 13

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). DOI: 10.1088/0004-637X/790/2/126. Citations: 7

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). DOI: 10.1103/PhysRevLett.112.165001. Citations: 9

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). DOI: 10.1088/0741-3335/56/6/064003. Citations: 11

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). DOI: 10.1063/1.4804637. Citations: 12

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). DOI: 10.1103/PhysRevLett.109.135002. Citations: 43

CONTRIBUTING AUTHOR PUBLICATIONS *(in reverse chronological order)*

MagNetUS: a magnetized plasma research ecosystem. N.C. Hurst, M. Abler, M.R. Brown, J. Juno, E.G. Kostadinova, N.A. Murphy, J. Olson, D.M. Orlov, D.B. Schaeffer, D.A. Schaffner, E.E. Scime, J.M. Tenbarge, and S.C. Thakur. Journal of Plasma Physics 91 (1) E32 2025 doi:10.1017/S0022377825000017

Summary report from the mini-conference on workforce development through research-based, plasma-focused activities. Evdokiya G. Kostadinova, Shannon Greco, Maajida Murdock, Ernesto Barraza-Valdez, Hannah R. Hasson, Imani Z. West-Abdallah, Cheryl A. Harper, Katrina Brown, Earl Scime, Franklin Dollar, Carl Greninger, Bryan Stanley, Elizabeth Oxford, David Schaffner, Laura Provenzani, Chandra Breanne Curry, Claudia Fracchiolla, Shams El-Adawy, Saikat Chakraborty Thakur, Dmitri Orlov, Caroline Anderson. Physics of Plasmas. 1 June 2023; 30 (6): 060601. https://doi.org/10.1063/5.0144847

Impact of the electron density and temperature gradient on drift-wave turbulence in the Large Plasma Device. C Perks, S Mordijck, T Carter, B Van Compernolle, S Vincena, G Rossi, D.A. Schaffner. Journal of Plasma Physics **88** (4), 905880405. DOI:10.1017/S0022377822000630 Citations: 0

A study of the radiation tolerance of poly-crystalline and single-crystalline CVD diamond to 800 MeV and 24 GeV protons. L. Bani et al (The RD42 Collaboration). Journal of Physics D: Applied Physics. **52** 465103 (2019). DOI: 10.1088/1361-6463/ab37c6 Citations: 1

Magnetothermodynamics: Measurements of the thermodynamic properties in a relaxed magnetohydrodynamic plasma. M. Kaur, L.J. Barbano, E.M. Suen-Lewis, J.E. Shrock, A.D. Light, D.A. Schaffner, M.R. Brown, S. Woodruff, and T. Meyer. Journal of Plasma Physics. 84(1) 905840114 (2018). DOI: 10.1017/S0022377818000156. Citations: 9

Measuring the equations of state in a relaxed magnetohydrodynamic plasma. M. Kaur, L. J. Barbano, E. M. Suen-Lewis, J. E. Shrock, A. D. Light, M. R. Brown, and D. A. Schaffner. Phys. Rev. E **97**, 011202(R) (2018). DOI: 10.1103/PhysRevE.97.011202. Citations: 9

Magnetohydrodynamic Turbulence: Observation and Experiment. M.R. Brown, D.A. Schaffner, and P.J. Weck. Physics of Plasmas. **22** 055601 (2015). DOI: 10.1063/1.4919391. Citations: 10

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). DOI: 10.1063/1.4805084. Citations: 9

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). DOI: 10.1063/1.4759010. Citations: 19

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). DOI: 10.1063/1.3677361. Citations: 13

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). DOI: 10.1016/j.nima.2010.04.096. Citations: 31

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). DOI: 10.1088/0029-5515/46/7/S04. Citations: 18

MANUSCRIPTS UNDER REVIEW

Turbulent Characteristics of the BMX Plasma. C.A. Cartagena-Sanchez, J. Carlson, D.A. Schaffner, submitted to the Journal of Plasma Physics March 2024

Effects of a Magnetic Nozzle Configuration on the Velocity of Magnetized Plasma Plumes. J. Carlson, C.A. Cartagena-Sanchez, D.A. Schaffner, submitted to the Journal of Plasma Physics March 2024

MANUSCRIPTS IN PREPARATION

-Particle Orbits with Adam
-Density/Bfield correlation with Manjit
-Bicoherence of Flow Driven Modes in the Large Plasma Device
-Spectral Density Analysis of a biased rotation plasma and an Observation of a Coherent Mode at High Rotation

-Comparison of permutation entropy and statistical complexity of a fluid, astrophysical, and a laboratory turbulent system
-Angular intermittency of a turbulent MHD laboratory plasma

CO-AUTHORED COMMUNITY PUBLICATIONS COMMITTEE REPORTS/WHITE PAPERS
Decadal White Paper on Small Colleges
Decadal White Paper on Reconnection
Decadal White paper on solar wind tunnel experiments
CPP Report
Powering the Future: Powering the Future
Fusion & Plasmas - A Report of the Fusion Energy Sciences Advisory Committee:
https://usfusionandplasmas.org/

Workshops Organized
APS-DPP-CPP Discovery Plasma Science Workshop July 2019
APS-DPP Mini-Conference 2020. Open Source Coding November 2020
Plasma Hack Week June 2021
MagNetUS Meeting August 2021
PlasmaPy Summer School 2024

PRESENTATIONS
Colloquium – Turbulent plasma wind tunnel studies on the Bryn Mawr Experiment (BMX) – Drexel Physics Colloquium. Philadelphia, PA. October 2024.

Invited Talk – The Role of PUIs in the Fusion Workforce Development Pipeline – NSF Clean Energy Technology Conference – Workforce Accelerator for Fusion Energy Technology, Hampton, VA May 2024

Public Talk. We Live in a Plasma Universe. Rochester Museum and Science Center - ROC The Eclipse 2024 Festival. Rochester, New York. April 6, 2024.

Seminar. Turbulent plasma wind tunnel studies on the Bryn Mawr Experiment (BMX). PPPL Heliophysics Seminar. December 2022.

Introduction to Plasmas. SULI Introduction to Fusion Energy and Plasma Physics Course. PPPL Virtual by Zoom. June 2022.

Invited Talk. APS-DPP 2022 Mini-Conference November 2022.

Invited Talk. AAPPS-DPP Meeting 2022, Virtual by Zoom. October 2022.

Colloquium. Princeton Plasma Physics Laboratory. May 2022. Virtual by Zoom.

Invited Talk. ECLIPSE Meeting 2022. Alexandria, VA.

Invited Talk. APS DPP 2021 Pittsburgh, PA.

Invited Talk. Study of Heliospheric-relevant Magnetic Turbulence in a Laboratory Plasma Wind Tunnel. American Astronomical Society Laboratory Astrophysics Division Meeting. Remote Presentation. June 2021.

Skype-a-Scientist Outreach Talk. The Solar System in a Bottle. Presented remotely to Shephard Glen Elemenatry School Hamden, CT. June 2021

Skype-a-Scientist Outreach Talk. Plasma and the Physics of Star Wars. Presented remotely to the Ruamrudee International School 8th grade class Bangkok, Thailand. May 2021

Contributed Oral. Turbulence studies using self-organized magnetic structures in a plasma wind tunnel. American Physical Society Division of Plasma Physics. Remote Presentation. November 2020.

Invited Public Talk. Delaware Valley Amateur Astronomers Club February 2020

Science on the Hill talk October 2019

Seminar. Magnetic Turbulence in a plasma wind tunnel at the Bryn Mawr Plasma Laboratory. Princeton Plasma Physics Laboratory Heliophysics Seminar. Princeton, NJ. April 2019.

Invited Public Talk. Houston Bryn Mawr Club January 2019

Colloquium. *Plasma Astrophysics in a Bottle: Heliospheric-Relevant Plasma Turbulence in the Laboratory*. Franklin and Marshall College Department of Physics Colloquium Series. Lancaster, PA. November 2017.

Contributed Oral. *Comparison of Fluid, Astrophysical, and Laboratory Turbulence using a Permutation Entropy and Statistical Complexity Technique.* Mini-Conference: "Bridging the Divide Between Space and Laboratory Plasma Physics." American Physical Society Division of Plasma Physics. Milwaukee, WI. October 2017.

Colloquium. *Plasma Astrophysics in a Bottle: Heliospheric-Relevant Plasma Turbulence in the Laboratory.* West Chester University Department of Physics Colloquium Series. West Chester, PA. October 2017.

Colloquium. *Plasma Astrophysics in a Bottle: Heliospheric-Relevant Plasma Turbulence in the Laboratory.* Dickinson College Department of Physics Colloquium Series. Carlisle, PA. September 2017.

Contributed Oral. *MHD turbulence in the Laboratory: Exploring Turbulence Analysis Techniques of Space in a Terrestrial Experiment*. International workshop on the interrelationship between Plasma Experiments in the Laboratory and in Space (IPELS). Rancho Bernardo, CA, June 2017.

Contributed Oral. *Encouraging Metacognition and Assessing Student Experience through Regular 'Real-Time' Feedback.* Pennsylvania Consortium for the Liberal Arts (PCLA) Pedagogic Partnership Conference. Easton, PA. May 2017

Invited Talk. *Generating dynamic magnetic turbulence in a laboratory device using plasma guns and evolving spheromaks*. Bringing Space Down to Earth: Exploring the Physics of Space Plasmas in the Laboratory Workshop. Los Angeles, CA. April 2017.

Invited Talk. *Turbulence and Fusion at the Tri-Co: Plasma Research at Bryn Mawr College and Swarthmore College*. American Physical Society Mid-Atlantic Section Meeting. Newark, DE. October 2016.

Colloquium. *Plasma Astrophysics in a Bottle—Analysis of heliospheric-relevant laboratory plasma turbulence.* Rensselaer Polytechnic Institute Physics, Applied Physics and Astronomy Colloquium Series. Troy, NY, October 2016.

Seminar. *Turbulence and Fusion at the Tri-Co: Plasma Research at Bryn Mawr and Swarthmore College.* UCLA Plasma Seminar Series. Los Angeles, CA, August 2016

Invited Talk*. Exploring reconnection, current sheets, and dissipation in a laboratory MHD turbulence experiment*. American Geophysical Union. San Francisco, CA. December 2015.

Invited Talk. *The End of the Turbulent Cascade: Exploring possible signature of MHD turbulent dissipation beyond spectra in a magnetically-dynamic laboratory plasma*. American Physical Society Division of Plasma Physics. Savannah, GA. November 2015.

Seminar. *Plasma Accelerator on the Swarthmore Spheromak Experiment: An Exploration of the Compressed Taylor State as a Fusion Target*. ARPA-E ALPHA Program Kick-off Meeting. Santa Fe, NM. October 2015.

Colloquium. *Plasma Astrophysics in a Bottle—Analysis of heliospheric-relevant laboratory plasma turbulence.* West Virginia Physics Colloquium Series. Morgantown, WV. April 2015.

Seminar. *Analysis of heliospheric-relevant laboratory plasma turbulence*. University of California, Irvine Plasma Physics Seminar. Irvine, CA. March 2015.

Public Talk. *It's 2015. Where is my Mr. Fusion? (and other burning plasma physics questions).* Philadelphia Nerd Nite. Philadelphia, PA. March 2015.

Colloquium. *Plasma Astrophysics in a Bottle—Magnetohydrodynamic Turbulence Studies in a Laboratory Plasma.* Bucknell University. Lewisberg, PA. February 2015.

Colloquium. *Plasma Astrophysics in a Bottle—Magnetohydrodynamic Turbulence Studies in a Laboratory Plasma*. Bryn Mawr College Colloquium. Bryn Mawr, PA. January 2015.

Invited Talk. *MHD Turbulence Analysis of a Relaxing Spheromak in a Plasma Wind Tunnel*. Workshop on Exploratory Topics in Plasma 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 Magnetic Helicity in an MHD wind-tunnel*. University of Maryland Plasma Physics Seminar. College Park, MD. January 2014

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.

Invited Talk. *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.

Invited Talk. *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.

Colloquium. *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

APSDPP Atlanta 2024
APSDPP Denver 2023
APSDPP Spokane 2022
CTWorkshop 2018 Portland First results from the Bryn Mawr Magnetohydrodynamic Experiment (BMX) David Schaffner, Bryn Mawr College
APSDPP Portland 2018
Shine 2018
Recent Progress on the magnetic turbulence experiment at the Bryn Mawr Plasma Laboratory. American Physical Society Division of Plasma Physics. Milwaukee, WI. October 2017.
Development of a long pulse plasma gun discharge for magnetic turbulence studies. American Physical Society Division of Plasma Physics. San Jose, CA. October 2016.
Plasma Accelerator on the Swarthmore Spheromak Experiment: An Exploration of the Compressed Taylor State as a Fusion Target. ARPA-E Energy Innovation Summit. National Resort, MD. February 2016.
Plasma Accelerator on the Swarthmore Spheromak Experiment: An Exploration of the Compressed Taylor State as a Fusion Target. ARPA-E ALPHA Program Kick-off Meeting. Santa Fe, NM. October 2015.
Plasma Physics at the Tri-Co: Laboratory Astrophysics and Fusion Studies, UCLA PlasmaFest, Westwood, CA. September 2015.
Heliospheric-Relevant Turbulence in Laboratory Plasma. SHINE Conference. Stowe, VT, July 2015.
Heliospheric-Relevant Turbulence in Laboratory Plasma. Department of Energy Town Hall Meeting. Bethesda, MD, June 2015.
Turbulence analysis of an MHD Wind Tunnel. American Physical Society Division of Plasma Physics Meeting. New Orleans, LA, November 2014.
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.

DOCTORAL THESIS
Study of Flow, Turbulence and Transport on the Large Plasma Device
https://www.researchgate.net/publication/236893054