

THOMAS E. STONE

Lecturer in Physics
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EDUCATION

Ph.D. 2010	University of Maine, Physics
M.S. 2001	University of Wisconsin—Madison, Physics
B.S. 2000	United States Naval Academy, Physics

PROFESSIONAL EXPERIENCE

2024 – present	Lecturer in Physics, University of Maine
2023 – 2024	Professor of Physics, Husson University External Graduate Faculty, University of Maine Dept. of Physics and Astronomy
2017 – 2023	Associate Professor of Physics, Husson University External Graduate Faculty, University of Maine Dept. of Physics and Astronomy
2011 – 2017	Assistant Professor of Mathematics and Physics, Husson University External Graduate Faculty, University of Maine Dept. of Physics and Astronomy
2009 – 2011	Instructor, Husson University (Mathematics and Physics)
2008 – 2009	Adjunct Instructor, Husson University (Mathematics and Physics) Adjunct Instructor, Eastern Maine Community College (Mathematics)
2007 – 2009	Graduate Assistant, University of Maine (Physics) Physics Laboratory and Recitation Instructor, University of Maine
2006 – 2007	Submarine Officer, USS PITTSBURGH (SSN 720) Quality Assurance Officer Assistant Weapons Officer
2003 – 2006	Submarine Officer, USS ANNAPOLIS (SSN 760) Electrical Assistant Chemistry and Radiological Controls Assistant Damage Control Assistant Quality Assurance Officer Submarine Qualified, August 2004 Engineer Qualified, July 2005
2002 – 2003	Student, Navy Nuclear Power School and Prototype
2000 – 2001	Research Assistant, University of Wisconsin Atomic Collisions Group

PUBLICATIONS

1. “How much additional energy will a heat pump use?” N. Grillo*, K. Flores*, M. Hartt*, S. Hustus*, and T.E. Stone, *submitted and under review* (*undergraduate research assistants)
2. “Building Solar Capacity in Maine—The Greater Bangor Solarize Case Study,” T.E. Stone, S.J.W. Klein, and K.K. McKeage, *Maine Policy Review* **30:1** 31-44 (2021).
3. “What do you value? How valuing time leads to deeper environmental engagement,” T.E. Stone, *Personal Sustainability Practices: Faculty Approaches to Walking Sustainability Talk and Living the UN SDGs*, edited by Mark Starik and Patricia Kanashiro (2021).
4. “Five year post-installation review of a heat pump water heater,” T.E. Stone, *Spire: The Maine Journal of Conservation and Sustainability* **3** (2019).
5. “Interdisciplinary Responses to Climate Change in the University Classroom,” N.D. Jenkins and T.E. Stone, *Sustainability: The Journal of Record*, **12:2** 100 (2019).

6. "Majority-vote model on a dynamic small-world network," T.E. Stone and S.R. McKay, *Physica A* **419** 437 (2015).
7. "Critical behavior of disease spread on dynamic small-world networks," T.E. Stone and S.R. McKay, *EPL* **95** 38003 (2011).
8. "Comparative effects of avoidance and vaccination in disease spread on a dynamic small-world network," T.E. Stone, M.M. Jones, and S.R. McKay, *Physica A* **389** 5515 (2010).
9. "Correlated spin networks in frustrated systems," T.E. Stone S.R. McKay, *Physica A* **389** 2911 (2010).
10. "Applications of network theory to frustrated spin systems and transitions in models of disease spread," T.E. Stone, Ph.D. Thesis, University of Maine (2010).
11. "Electronic structure and angular momentum coupling as reflected in electron excitation out of rare-gas metastable levels: Excitation cross sections of krypton," R.O. Jung, T.E. Stone, J.B. Boffard, L.W. Anderson and C.C. Lin, *Phys. Rev. A* **73** 022722 (2006).
12. "Electron-Impact Excitation out of the Metastable Levels of Krypton," R.O. Jung, T.E. Stone, J.B. Boffard, L.W. Anderson and C.C. Lin, *Phys. Rev. Lett.* **94** 163202 (2005).

PRESENTATIONS

1. "What should we teach in a sustainability class," Association for the Advancement of Sustainability in Higher Education conference, Boston, MA, 2023
2. "What can I do? Garden!" Northern Light Health Climate Health Monthly Meeting, May 2023.
3. "What should we teach the young about climate," Climate Action Net virtual community conversation (panelist), June 2022.
4. "What do you value—the key sustainability question," Husson University Faculty Noon Seminar Series, virtual (due to covid), November 2021.
5. "Interdisciplinary Approach to Environmental Education Through Service-Learning," Association for the Advancement of Sustainability in Higher Education conference, virtual (due to covid), 2020 (co-presented with Kimberly Post from St. Joseph's College and Sally Slovenski, Executive Director of Maine Campus Compact).
6. "What if They're Right? Responding to the Climate Emergency in the Classroom," Maine Environmental Education Association Conference, Belfast, ME, 2020 (co-presented with Nico Jenkins).
7. "Sustainability 101: Building Resilience into Your Life and the Community," Climate Convergence Conference, Blue Hill, ME, 2019 (co-presented with Nico Jenkins).
8. "Service Learning: Campuses for Environmental Stewardship Grant Results," Husson University Faculty Development Days workshop, 2019 (co-presented with Nico Jenkins and Clinton Spaulding from Husson University and Kimberly Post from St. Joseph's College).
9. "What if They're Right: Teaching and Responding to Climate Change in the Classroom," Association for the Advancement of Sustainability in Higher Education conference, Pittsburgh, PA, 2018 (co-presented with Nico Jenkins).
10. "Bridge Courses at Husson," Husson University Mathematics Department seminar, 2018.
11. "A Philosopher and a Physicist Respond to Climate Change in Their University Classroom," University of Maine Communication and Journalism colloquium, 2018 (co-presented with Nico Jenkins).
12. "What if They're Right? Responding to Climate Change in the University Classroom," Maine Sustainability and Water Conference, Augusta, ME, 2018 (co-presented with Nico Jenkins).
13. "What if They're Right? Individual Responses to Climate Change," Southern Vermont College colloquium, Bennington, VT, 2018.
14. "Incorporating Service Learning into the Classroom," Husson University Faculty Development Days Workshop, 2016 (co-presented with Nico Jenkins, Adam Crowley, and David Haus).

15. "Spatially clustered zealots in a two-dimensional voter model," American Physical Society March Meeting, Baltimore, MD, 2016.
16. "2D voter model with clustered zealots," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2015.
17. "Consensus problems in Euclidean networks with cost," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2013.
18. "Universal features of different small-world models," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2012.
19. "Majority-vote model on a dynamic small-world square lattice," American Physical Society March Meeting, Boston, MA, 2012.
20. "A conjecture concerning universality in small-world systems with an absorbing state," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2011.
21. "An Environmentalist Advocates for Nuclear Power," College of the Atlantic Human Ecology Seminar, Bar Harbor, ME, 2011.
22. "Universal features of dynamic small-world networks," American Physical Society March Meeting, Dallas, TX, 2011.
23. "Disease spreading on a dynamic small-world network," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2010.
24. "Disease spreading on dynamic small-world networks," University of Maine Graduate Student Exposition, Orono, ME, 2010.
25. "Critical behavior of epidemic spreading on dynamic small-world networks," Dynamics Days, Northwestern University, Chicago, IL, 2010.
26. "Epidemic spreading on adaptive networks with community structure," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2009.
27. "Disease Spreading on Small-World Adaptive Networks," University of Maine Graduate Student Exposition, Orono, ME, 2009.
28. "Correlated Spin Networks in Spin Glasses," American Physical Society March Meeting, Pittsburgh, PA, 2009.
29. "A network view of spin glass ordering: non-contiguous domains of correlated fluctuations", Dynamics Days, University of California—San Diego, 2009.
30. "Probing the memory of a spin glass," Greater Boston Area Statistical Mechanics Meeting, Brandeis University, Waltham, MA, 2008.
31. "Network topology of spin glasses," University of Maine Graduate Student Exposition, Orono, ME, 2008.

COURSES TAUGHT (Husson University)

SC 482 Environmental Science senior capstone project (additional project)
SC 481 Environmental Science senior capstone project
SC 367 Mathematics and Physics of Sustainable Energy
SC/EH 299 Literature of Ecology (co-taught with English faculty member)
SC 286 University Physics II
SL 286 University Physics II laboratory
SC 285 University Physics I
SL 285 University Physics I laboratory
SC 272 Physics II
SL 272 Physics II laboratory
SC 271 Physics I
SL 271 Physics I laboratory
SCI 250 Applied Physics

Thomas E. Stone (continued)

SC 213 Sustainability Science Projects
SC 181 General Chemistry I
SC 167 Energy and Society
SC 109 Introduction to Gardening
BR 113 What if They're Right? Individual Responses to Climate Change (co-taught with
Philosophy faculty member)
MS 181 Calculus with Applications
MS 180 Pre-Calculus
MS 141 Contemporary College Algebra
MS 132 Probability and Statistics
MS 093 Core Arithmetic and Algebra
EH 299 Environmental Literature (co-taught with English faculty member)
IS 455 Independent Study: Deep Gardening
HE 111 Husson Experience

COURSES TAUGHT (University of Maine)

PHY 574 Methods of Theoretical Physics I
PHY 598 Complex Adaptive Networks
PHY 512 Statistical Mechanics
PHY 497 Mathematical Methods of Physics
PHY 261 Physical Measurements Laboratory
PHY 122 Physics for Engineers and Physical Scientists II

HONORS AND AWARDS

1. William H. Beardsley Excellence in Teaching Award, 2019-2020.
2. Sabbatical, Spring-Summer 2018 (transition research agenda to sustainability science)
3. Husson University Service Award, 2016-2017.
4. Nominated for the Beardsley Teaching Award, 2016.
5. 2nd Prize, Graduate Student Exposition, 2010, talk titled "Disease spreading on dynamic small-world networks."
6. 2nd Prize, Graduate Student Exposition Mathematics and Physical Sciences Division, 2009, talk titled "Disease Spreading on Small-World Adaptive Networks."
7. Secretary of the Navy Distinguished Midshipman Graduate, USNA, 2000.