

Dirk M. Luchtenburg

Curriculum Vitae

Associate Professor of Mechanical Engineering

The Cooper Union for the Advancement of Science and Art | New York, NY 10003

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Research profile

Dynamics, nonlinear systems, and feedback control, with emphasis on geometric and computational methods for transport and invariant-manifold dynamics. Applications include astrodynamics and cislunar transport, robotics and autonomous systems, and fluid-flow modeling and control. My research in dynamics and control directly informs my teaching and undergraduate research mentorship.

Academic appointments

Associate Professor of Mechanical Engineering The Cooper Union	2021–present
Assistant Professor of Mechanical Engineering The Cooper Union	2015–2021
Visiting Assistant Professor of Mechanical Engineering The Cooper Union	2015
Adjunct Professor and Research Fellow The Cooper Union, Department of Mechanical Engineering	2013–2014
Postdoctoral Research Associate Princeton University, Department of Mechanical and Aerospace Engineering	2010–2013
Lecturer, Modern Control Princeton University, Department of Mechanical and Aerospace Engineering	2011–2012
Technical Consultant, part-time Schlumberger, Princeton Technology Center	2012

Education

Ph.D., Process Engineering, <i>magna cum laude</i> Technische Universität Berlin (Berlin Institute of Technology), Germany	2010
M.Sc., Aerospace Engineering Delft University of Technology, The Netherlands	2004

Honors, awards, and fellowships

C.V. Starr Distinguished Professor of Engineering The Cooper Union. Two-year named professorship supporting faculty research and scholarly activity.	2023–2025
Summer Desert Research Retreat (DARE) Fellowship Ben-Gurion University of the Negev; fellowship for collaborative research in fluid dynamics and control.	2025
Invited Researcher Northeastern University, Department of Electrical & Computer Engineering	2005
Invited Researcher U.S. Air Force Academy, Department of Aeronautics	2002

Scholarship

Research metrics. Approximately 4,000 Google Scholar citations; h-index 17; i10-index 22 (September 2026).

Publications are listed in reverse chronological order within category.

Current scholarly activity. Ongoing research collaboration with Prof. Shane D. Ross (Virginia Tech), developed during the 2025–2026 sabbatical, on dynamical systems and control methods for transport, with applications to cislunar and space dynamics.

Book in development. *Engineering Dynamics: A Geometric and Computational Companion*, manuscript in preparation

(2026–present). Developed for ME 200 Dynamics, the book presents a geometric, frame-based approach to engineering dynamics integrated with computation and simulation, designed to prepare students to progress from planar mechanics to three-dimensional dynamics and applications in robotics, flight, and autonomous systems.

Advanced professional development. CISM-EUROMECH Advanced Course, *Model Reduction and Machine Learning for Solids, Fluids and Controls*, International Centre for Mechanical Sciences (CISM), Udine, Italy, September 9–13, 2024.

Peer-reviewed journal articles

- [1] K. R. Choy, S. Sin, Y. Tong, J. K. Udupa, D. M. Luchtenburg, M. E. Wagshul, R. Arens, and D. M. Wootton. “Upper airway effective compliance during wakefulness and sleep in obese adolescents studied via two-dimensional dynamic MRI and semiautomated image segmentation”. In: *Journal of Applied Physiology* 131.2 (2021), pp. 532–543.
- [2] H. Y. Park, D. Abes, M. S. Lawless, and D. M. Luchtenburg. “Implementation of a microphone array for improved noise path estimation in a feed-forward active noise control system”. In: *The Journal of the Acoustical Society of America* 148.4 (2020), pp. 2588–2588.
- [3] D. Shekhtman and D. M. Luchtenburg. “Seven Degrees-of-Freedom Model for the Roll Stabilization of Unstable Ships”. In: *J. Dyn. Sys., Meas., Control* 141.8 (2019).
- [4] D. M. Luchtenburg, C. W. Rowley, M. W. Lohry, L. Martinelli, and R. F. Stengel. “Unsteady High-Angle-of-Attack Aerodynamic Models of a Generic Jet Transport”. In: *J. Aircraft* 52.3 (2015), pp. 890–895.
- [5] D. M. Luchtenburg, S. L. Brunton, and C. W. Rowley. “Long-time uncertainty propagation using generalized polynomial chaos and flow map composition”. In: *J. Comp. Phys.* 274 (2014), pp. 783–802.
- [6] J. H. Tu, D. M. Luchtenburg, C. W. Rowley, S. L. Brunton, and J. N. Kutz. “On dynamic mode decomposition: Theory and applications”. In: *J. Comp. Dynamics* 1.2 (2014), pp. 391–421.
- [7] O. Frederich, J. Scouten, D. M. Luchtenburg, and F. Thiele. “Large-scale dynamics in the flow around a finite cylinder with a ground plate”. In: *Fluid Dyn. Res.* 43.1 (2011). Highlights Collection, p. 015504.
- [8] A. Lacarelle, D. M. Luchtenburg, M. R. Bothien, B. R. Noack, and C. O. Paschereit. “Combination of Image Postprocessing Tools to Identify Coherent Structures of Premixed Flames”. In: *AIAA J.* 48.8 (2010), pp. 1708–1720.
- [9] A. Lacarelle, T. Faustmann, T. Greenblatt, C. O. Paschereit, O. Lehmann, D. M. Luchtenburg, and B. R. Noack. “Spatio-temporal characterization of a conical swirler flow field under strong forcing”. In: *J. Eng. Gas Turbines Power* 131.3 (2009).
- [10] D. M. Luchtenburg, B. Günther, B. R. Noack, R. King, and G. Tadmor. “A generalized mean-field model of the natural and high-frequency actuated flow around a high-lift configuration”. In: *J. Fluid Mech.* 623 (2009), pp. 283–316.
- [11] S. G. Siegel, J. Seidel, C. Fagley, D. M. Luchtenburg, K. Cohen, and T. McLaughlin. “Low-dimensional modelling of a transient cylinder wake using double proper orthogonal decomposition”. In: *J. Fluid Mech.* 610 (2008), pp. 1–42.

Peer-reviewed conference publications

- [1] D. M. Luchtenburg and S. D. Ross. “Controlled Transport and Station Keeping Between Periodic Cycles in the Standard Map”. In: *Proceedings of the 2026 AAS/AIAA Astrodynamics Specialist Conference*. AAS Paper 26-802, Whistler, British Columbia, July 26–30, 2026. 2026.
- [2] A. M. Lutz, D. M. Luchtenburg, A. Rawat, and S. D. Ross. “Dynamical Classification of Chaotic Cislunar Trajectories via Resonance Structure”. In: *Proceedings of the 2026 AAS/AIAA Astrodynamics Specialist Conference*. AAS Paper 26-714, Whistler, British Columbia, July 26–30, 2026. 2026.
- [3] N. Wolf-Sonkin, M. H. Rosen, and D. M. Luchtenburg. “Investigating the Influence of Mechanical Configuration on Energy Efficiency in Quadrupedal Robots”. In: *Proceedings of the ASME 2025 International Mechanical Engineering Congress and Exposition*. Paper IMECE2025-167556, V005T08A051. 2026. DOI: [10.1115/IMECE2025-167556](https://doi.org/10.1115/IMECE2025-167556).
- [4] J. Chen, E. Kim, C. Leppitsch, B. Meiner, D. Zaretsky, T. R. Rykkje, D. M. Luchtenburg, and T. J. Impelluso. “Part 1: Gyroscopic Control of Robotic Smart Vehicles Using SO(3)”. In: *Proceedings of the ASME 2023 International Mechanical Engineering Congress and Exposition*. Paper IMECE2023-113518, V008T09A042. 2024. DOI: [10.1115/IMECE2023-113518](https://doi.org/10.1115/IMECE2023-113518).
- [5] T. R. Rykkje, K. Johnsen, P. S. Hole, J. H. Jacobsen, D. M. Luchtenburg, and T. J. Impelluso. “Part 2: Gyroscopic Control of Robotic Smart Vehicles Using SE(3)”. In: *Proceedings of the ASME 2023 International Mechanical Engineering Congress and Exposition*. Paper IMECE2023-111506, V008T09A039. 2024. DOI: [10.1115/IMECE2023-111506](https://doi.org/10.1115/IMECE2023-111506).
- [6] D. M. Luchtenburg, M. Shah, T. J. Impelluso, and T. Ravneberg Rykkje. “A Projection-Based Derivation of the Equations of Motion for the Moving Frame Method for Multi-Body Dynamics”. In: *ASME International Mechanical Engineering Congress and Exposition*. Vol. 85659. American Society of Mechanical Engineers. 2021, V009T09A005.
- [7] K. R. Choy, S. Sin, Y. Tong, J. Udupa, C. Wu, M. Wagshul, R. Arens, D. Luchtenburg, and D. Wootton. “Upper Airway Area-Pressure Dynamic Analysis Tool for Studying Obstructive Sleep Apnea Syndrome”. In: *Proceedings of 45th Annual Northeast Bioengineering Conference (NEBEC)* (2019).

- [8] Z. Jin, Y. Shao, M. So, C. Sable, N. Shlayan, and D. Luchtenburg. "A Multisensor Data Fusion Approach for Simultaneous Localization and Mapping". In: *Proceedings of the 22nd IEEE Conference on Intelligent Transportation Systems Conference (ITSC), Paper MoG-T8.4* (2019).
- [9] M. Saure, S. Iversen, A. Snekkevik, R. Gebhardt, Z. Chen, C. Mignano, D. M. Luchtenburg, and T. Impelluso. "Modelling the Motion of a 2-Arm ROV". In: *ASME International Mechanical Engineering Congress & Exposition, Paper 10282* (2019).
- [10] D. Shekhtman and D. M. Luchtenburg. "Justifying the Stabilization of a Marginally Stable Ship". In: *ASME Paper No. DSCC2017-5116* (2017).
- [11] Y. Song and D. Luchtenburg. "Using compliant leg design for impact attenuation of airdrop landings of quadruped robots". In: *Robotics and Automation (ICRA), 2017 IEEE International Conference on*. IEEE. 2017, pp. 3708–3713.
- [12] P. Yecko, D. M. M. Luchtenburg, E. Forgoston, and L. Billings. "Stirring inertia in time-dependent low Reynolds number flows". In: *Bulletin of the American Physical Society* (2017).
- [13] O. Frederich and D. M. Luchtenburg. "Modal Analysis of Complex Turbulent Flow". In: *Proceedings of the 7th International Symposium on Turbulence and Shear Flow Phenomena (TSFP-7)*. 2011.
- [14] K. Aleksić, D. M. Luchtenburg, R. King, B. R. Noack, and J. Pfeiffer. "Robust nonlinear control versus linear model predictive control of a bluff body wake". In: *AIAA Paper 2010-4833*. 2010.
- [15] O. Frederich, J. Scouten, D. M. Luchtenburg, and F. Thiele. "Large-scale dynamics in the flow around a finite cylinder with ground plate". In: *Proceedings of the 6th International Symposium on Turbulence and Shear Flow Phenomena (TSFP-6)*. 2009, pp. 1331–1336.
- [16] O. Frederich, J. Scouten, D. M. Luchtenburg, F. Thiele, M. Jensch, F. Hüttmann, M. Brede, and A. Leder. "Joint numerical and experimental investigation of the flow around a finite wall-mounted cylinder at a Reynolds number of 200,000". In: *Proceedings of the ERCOFTAC International Symposium on Engineering Turbulence Modelling and Measurements (ETMM7)*. 2008, pp. 517–52.
- [17] A. Lacarelle, D. M. Luchtenburg, M. R. Bothien, C. O. Paschereit, and B. R. Noack. "A combination of image post-processing tools to identify coherent structures of premixed flames". In: *Proceedings of the 2nd International Conference on Jets, Wakes and Separated Flows (ICJWSF)*. 2008.
- [18] O. Frederich, J. Scouten, D. M. Luchtenburg, and F. Thiele. "Database variation and structure identification via POD of the flow around a wall-mounted finite cylinder". In: *Proceedings of 5th Conference on Bluff Body Wakes and Vortex Induced Vibrations (BBVIV5)*. 2007, pp. 185–188.
- [19] G. Tadmor, M. D. Centuori, D. M. Luchtenburg, O. Lehmann, B. R. Noack, and M. Morzyński. "Low order Galerkin models for the actuated flow around 2-D airfoils". In: *AIAA Paper 2007–1313*. 2007.
- [20] D. M. Luchtenburg, G. Tadmor, O. Lehmann, B. R. Noack, R. King, and M. Morzyński. "Tuned POD Galerkin models for transient feedback regulation of the cylinder wake". In: *AIAA Paper 2006–1407*. 2006.
- [21] O. Lehmann, D. M. Luchtenburg, B. R. Noack, R. King, M. Morzyński, and G. Tadmor. "Wake stabilization using POD Galerkin models with interpolated modes". In: *Proceedings of 44th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*. 2005, pp. 500–505.
- [22] D. Wetlesen, S. Siegel, K. Cohen, D. M. Luchtenburg, and T. McLaughlin. "Sensor based proper orthogonal decomposition state estimation in the presence of noise". In: *AIAA Paper 2005–0298*. 2005.
- [23] K. Cohen, S. Siegel, D. M. Luchtenburg, T. McLaughlin, and A. Seifert. "Sensor placement for closed-loop flow control of a D-shaped cylinder wake". In: *AIAA Paper 2004–2523*. 2004.
- [24] D. M. Luchtenburg, S. Siegel, K. Cohen, and T. McLaughlin. "Comparison of 2D POD modes extracted from two- and three-dimensional simulations of a cylinder wake". In: *AIAA Paper 2004–1269*. 2004.
- [25] F. Bos, O. Bruijn, N. P. Hinsberg, T. J. J. Lombaerts, P. Lucas, D. M. Luchtenburg, J. A. S. Witteveen, and K. G. Zee. "Feasibility study of a hot plume test facility". In: *Proceedings of the Fourth Symposium on Aerothermodynamics for Space Vehicles: co-sponsored by European Space Agency*. 2001, pp. 639–644.

Book chapters

- [1] D. M. Luchtenburg, K. Aleksić, M. Schlegel, B. R. Noack, R. King, G. Tadmor, B. Günther, and F. Thiele. "Turbulence control based on reduced-order models and nonlinear control design". In: *Active Flow Control II*. Ed. by R. King. Notes on Numerical Fluid Mechanics and Multidisciplinary Design. Springer, 2010.
- [2] O. Frederich, J. Scouten, D. Luchtenburg, and F. Thiele. "Numerical simulation and analysis of the flow around a wall-mounted finite cylinder". In: *Imaging Measurement Methods for Flow Analysis*. Ed. by W. Nitsche and C. Dobriloff. Vol. 106. Notes on Numerical Fluid Mechanics and Multidisciplinary Design. Springer, 2009, pp. 207–216.
- [3] M. Schlegel, B. R. Noack, P. Comte, D. Kolomskiy, K. Schneider, M. Farge, J. Scouten, D. M. Luchtenburg, and G. Tadmor. "Reduced-order modelling of turbulent jets for noise control". In: *Numerical Simulation of Turbulent Flows and Noise Generation*. Ed. by C. Brun, D. Juve, M. Manhart, and C.-D. Munz. Vol. 104. Notes on Numerical Fluid Mechanics and Multidisciplinary Design. Springer, 2009, pp. 3–27.

- [4] O. Frederich, D. M. Luchtenburg, E. Wassen, and F. Thiele. "Analysis of the unsteady flow around a wall-mounted finite cylinder at $Re=200,000$ ". In: *Advances in Turbulence XI*. Ed. by J. M. L. M. Palma and A. S. Lopes. Vol. 117. Proceedings in Physics. Springer, 2007, pp. 85–87.

Technical reports

- [1] D. M. Luchtenburg, B. R. Noack, and M. Schlegel. *An introduction to the POD Galerkin method for fluid flows with analytical examples and MATLAB source codes*. Tech. rep. 01/2009. Berlin Institute of Technology, Department for Fluid Dynamics and Engineering Acoustics, Chair in Reduced-Order Modelling for Flow Control, 2009.
- [2] D. M. Luchtenburg, B. Vitrac, and M. Zengl. "Model reduction methods for flow control". In: *ERCOTAC Bulletin 77, selected report of the 2nd Young ERCOTAC Workshop*. 2008, pp. 21–25.
- [3] O. Lehmann, D. M. Luchtenburg, and N. Losse. *Calibration of Model Coefficients Using the Adjoint Formulation*. Tech. rep. 1st Young Ercotac Workshop, Montestigliano, Italy, 2007.

Invited presentations

- [1] *Balanced POD and the Eigensystem Realization Algorithm*. AIAA Aviation 2016, invited contribution for session on "Modal Decomposition Methods for Aerodynamic Flows". 2016.
- [2] *Modal reduction methods for flow control*. Workshop on Material Transport in Geophysical Flows, NSF program on Mathematics of Planet Earth 2013+, Montclair State University. 2016.
- [3] *Model reduction using snapshot-based realizations*. SIAM Conference on Computational Science and Engineering. 2013.

Patent

- [1] D. Shekhtman, D. M. Luchtenburg, and S. Janjusevic. *Active ship roll stabilization of unstable ships via pendulum actuator*. Provisional Patent #62636397 / EFS ID 31918018. 2018.

Teaching

Courses taught and developed at The Cooper Union

Dynamics	2017–2020, 2026
Feedback Control Systems	2016–2020, 2022–2024, 2026
Systems Engineering (System Dynamics)	2015, 2017–2018, 2020–2025
Modern Control	2016, 2018–2019, 2021, 2023
Capstone Senior Mechanical Engineering Design	2018–2021, 2023–2026
Space Dynamics	2023–2024
Mechanical Vibrations	2015, 2022–2023
Drone Control	2020, 2022, 2025
Robot Programming & Control with ROS	2024
Industrial Robots	2019–2020
Vertically Integrated Projects: Smart Cities	2020–2025
Engineering Design and Problem Solving	2015–2016
Engineering Experimentation	2016
Engineering Mechanics	2014–2015
Physics I: Mechanics	Summer 2023
Process Control Laboratory	2018
Statics	2019

Selected independent studies and advanced topics

- **Trajectory Optimization Algorithms** (Fall 2024): computational trajectory optimization with experimental implementation on Crazyflie quadrotors.
- **Selected Advanced Topics: Data-Driven Control** (Spring 2024): model reduction and system identification, including POD/Galerkin models, SINDy, and ERA, with applications drawn from fluid dynamics and control.
- Advanced student work in robot programming and control with ROS, autonomous systems, and experimental dynamics.

Curriculum development and pedagogical leadership

- **Dynamics**: developed the curriculum for a new required course introduced into the Mechanical Engineering curriculum in 2017; current course redevelopment emphasizes geometric reasoning, rotating frames, computational modeling, and simulation. Developing the companion text *Engineering Dynamics: A Geometric and Computational Companion*.
- **Feedback Control Systems**: integrates computational demonstrations and experimental Crazyflie platforms, including PID attitude-control and tuning demonstrations.

- **Systems Engineering (System Dynamics):** developed a modeling-centered treatment of mechanical, electrical, fluid, and thermal systems. Teaching assistant Benjamin Aziel developed a substantial open online *System Dynamics* resource based on the course and migrated the material to executable Quarto format.
- **Drone Control:** developed a new elective integrating aircraft modeling, aerodynamic forces and disturbances, feedback control, path planning, Python simulation, and experimental control.
- **Industrial Robots:** co-modernized the course with Prof. Mili Shah, emphasizing linear algebra, kinematics, camera calibration, and feedback control.

Teaching professional development

Vertically Integrated Projects Consortium Meeting, Georgia Tech	2023
Olin College Summer Institute	2020
National Effective Teaching Institute (NETI-2)	2018

Student research and design mentorship

Selected research mentorship

- **Nathan Wolf-Sonkin (2024–2025).** M.Eng. project advisor, co-advised with Prof. Michelle H. Rosen. Research on energy-efficient quadrupedal robots resulted in a peer-reviewed ASME IMECE 2025 conference paper.
- **Eunkyu Kim (2021–present).** Research mentorship in spectral submanifold (SSM) methodology following his studies at Cooper; subsequently completed an M.S. in Mathematics at NYU Courant and began doctoral study at the University of Washington.
- **Omer Chanoch (Virginia Tech, 2026–present).** Co-advising graduate research on transport in Keplerian and circular restricted three-body dynamics with Prof. Shane D. Ross.
- **Khushant Khurana (2024).** Advanced independent-study and research mentorship in data-driven control, robot programming and ROS, trajectory optimization, and experimental work with Crazyflie platforms.
- **Benjamin Aziel (2023).** Teaching assistant for Systems Engineering (System Dynamics); developed a substantial public online set of course notes and instructional material based on the course.
- **Joon Kim (Summer 2024).** Summer research mentorship; developed an interactive Crazyflie platform using OpenCV and MediaPipe hand tracking to physically realize dynamical systems including a pendulum and single and coupled mass–spring–damper systems.
- **Amelie M. Lutz (Virginia Tech, 2025–2026).** Research collaboration and mentorship during sabbatical work with Prof. Shane D. Ross; provided computational tools and research guidance for her work on the dynamical classification of chaotic cislunar trajectories, resulting in conference paper AAS 26-714.

Earlier graduate research supervision

- **Visualizing Physical Phenomena Using Swarming Nano Quadrotors**, Justin Rooney, M.Eng. (2020).
- **Controlling Mechanical Systems with DQN and Differentiable Programming**, Yingfu (Ben) Ma, M.Eng. (2020).
- **Reduced-Order Models of Electrohydraulic Pulsed Discharge and Concrete Fracture**, Dachi Tan, M.Eng. (2020), co-advised with Prof. Philip Yecko; full-tuition Petram scholarship.
- **Roll Stabilization of a Marginally Stable Ship**, David Shekhtman, M.Eng. (2017); resulted in an ASME DSCC paper, an ASME journal article, and a provisional patent.

Selected design and competition mentorship

- **NASA RASC-AL Senior Capstone Team (2026–2027).** Faculty advisor to a senior capstone team developing a concept for the 2027 NASA RASC-AL Competition, *Enabling Extreme Exploration*; design of a long-duration, rapid, and autonomous lunar traverse system for exploring shadowed craters and high mountains on the Moon.
- **AIAA Design/Build/Fly (2023–2024).** Faculty advisor to Cooper Union’s first participating capstone team; the team designed, fabricated, qualified, and flew its aircraft at the 2024 international competition in Wichita, Kansas. Continued advising aircraft design activity the following year.
- **Vertical Flight Society Design-Build-Vertical Flight Competition (2023–2024).** Co-advisor with Prof. David Wootton to a senior design team that designed and built a VTOL aircraft for the 2024 competition; the Cooper Union team was one of nine university teams selected to compete.
- **Multisensor SLAM (2018–2019).** Research mentorship of Zhekai Jin, Yifei Shao, Minjoon So, and Carl Sable, with Neveen Shlayan; work resulted in a peer-reviewed IEEE ITSC 2019 paper and first place in the 2019 IEEE Region I Student Paper Competition.
- **Impact Attenuation of Airdrop Landings of Quadruped Robots.** Independent study; IEEE ICRA publication and Best Paper Presentation Award at the 2016 IEEE MIT Undergraduate Research Technology Conference.

Dynamics and Control Laboratory

Developed and maintained experimental infrastructure supporting teaching and student research in dynamics, feedback control, robotics, and autonomous systems. Platforms include Crazyflie quadrotors and motion-capture and localization systems used for feedback-control demonstrations and student projects. Current work is rebuilding the laboratory as documented, reusable infrastructure for interdisciplinary teaching and research, including experimental platforms that use coordinated drones to physically realize and visualize dynamical systems.

Research support and grants

- **Embodied Dynamics: Making Mathematics Move**, internal research infrastructure proposal, The Cooper Union, 2026 (submitted). Proposed modernization and documentation of shared Dynamics and Control Laboratory infrastructure.
- **C.V. Starr Distinguished Professorship research support**, The Cooper Union, 2023–2025.
- **Cooper Union Grant Program**: “Cooper-based center for autonomous and connected vehicles in smart cities” (with Prof. Shlayan), 2019.
- **Cooper Union Grant Program**: “State-of-the-art robotics course including hands-on modules” (with Prof. Shah), 2019.
- **Petram full-tuition Master’s scholarship** (with Prof. Yecko), 2018–2020.
- **NSF RI Collaborative Research**: “Improved Vehicle Autonomy in Geophysical Flows,” contributor (PI: Prof. Yecko; Award No. 1462823), 2017.

Professional service

External review and evaluation

- **NASA Space Technology Research Grants Program, Early Stage Innovations (2022)**. Proposal reviewer and subject matter expert panelist; reviewed research proposals and participated in the SME review panel, September 7–8, 2022.

Conference leadership

- Co-organizer and session chair, *Engineering for Everyone*, ASEE Mid-Atlantic Section Conference, 2019.
- Session chair, *Tracking Control Systems*, ASME Dynamic Systems and Control Conference, 2017.
- Minisymposium organizer (with J. Tu), *Data-driven methods for characterizing large-scale dynamical systems*, SIAM Conference on Applications of Dynamical Systems, 2013.

Peer review

Proceedings of the Royal Society A; Springer Nature (reviewer of Dynamics book manuscript); Physics of Fluids; ASME/IMECE; AIAA Journal; SIAM Review; SIAM Journal on Scientific Computing; Pearson; IEEE Control Systems Magazine.

Professional affiliations

AIAA; SIAM; ASME; ASEE.

Institutional service at The Cooper Union

- Engineering Dean Search Committee, Fall 2026.
- President of the Faculty-Student Senate, 2024.
- Academic Standards Committee, Spring 2018–present.
- Mechanical Engineering Faculty Search Committee, Spring 2020–Spring 2021.
- HSS Representative, Fall 2017–2020.
- ASEE Representative, Spring 2018–2022.