

Sujit S. Datta

Department of Chemical and Biological Engineering, Princeton University

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Professional Positions

August 2017 – present: *Princeton University*

Assistant Professor of Chemical and Biological Engineering

Associated Faculty, Princeton Institute for the Science and Technology of Materials

Associated Faculty, Andlinger Center for Energy and the Environment

Associated Faculty, Princeton Environmental Institute

Education and Training

October 2013 – June 2017: *California Institute of Technology*

Postdoctoral Fellow in Chemical Engineering

Mentor: Rustem F. Ismagilov

Field of study: Biophysics of the gut, biological imaging

September 2008 – September 2013: *Harvard University*

Ph.D. in Physics, additional concentration in Engineering and Physical Biology; A. M. in Physics

Thesis advisor: David A. Weitz

Field of study: Soft materials physics, flow through porous materials

September 2004 – May 2008: *University of Pennsylvania*

M. S. in Physics, concentration in nanoscience

B. A. in Mathematics and Physics (honors), summa cum laude

Thesis advisor: A. T. Charlie Johnson, Jr.

Field of study: Carbon nanomaterials engineering

Selected Honors and Awards

- American Institute of Chemical Engineers 35 Under 35 Award, 2020
- US NAE Frontiers of Engineering Selectee, 2020
- ACS Unilever Award For Outstanding Young Investigator in Colloid & Surfactant Science, 2020
- Stanley Corrsin Memorial Lecturer, Johns Hopkins University, 2020
- NSF CAREER Award, 2019
- Princeton Engineering Commendation for Outstanding Teaching, 2018, 2019, 2020
- Princeton Nominee, Pew Biomedical Scholars, 2020
- Princeton Nominee, Edward Mallinckrodt, Jr Foundation Grant, 2018 and 2019
- American Chemical Society Petroleum Research Fund New Investigator Award, 2018
- Alfred Rheinstein Faculty Award recognizing excellence in teaching and scholarship, 2018
- Burroughs Wellcome Fund Career Awards at the Scientific Interface, finalist, 2017
- Andreas Acrivos Dissertation Award in Fluid Dynamics, American Physical Society, 2015
- Student Research Fellowship, ConocoPhillips, 2011-2013
- Harvard Certificate of Distinction in Teaching, 2010
- E. M. Purcell and J. M. Peirce Graduate Fellowships, 2008
- LeRoy Apker Award, American Physical Society, 2008
- William E. Stephens Prize in Physics and Astronomy, 2008
- University of Pennsylvania Dean's Scholar, 2007
- Phi Beta Kappa Honors Society, 2007
- Roy and Diana Vagelos Science Challenge Award, 2006



Publications (>2600 Google Scholar Citations)

At Princeton (*As corresponding author, †Equal contribution)

42. Multi-scale dynamics of colloidal deposition and erosion in porous media
N. Bizmark, J. Schneider, R. D. Priestley, S. S. Datta*, in press in *Science Advances* (2020)
41. Chemotactic migration of bacteria in porous media
T. Bhattacharjee, D. B. Amchin, J. A. Ott, F. Kratz, S. S. Datta*, *bioRxiv* 10.1101/2020.08.10.244731(2020)
40. Bistability in the unstable flow of polymer solutions through pore constriction arrays
C. A. Browne, A. Shih, S. S. Datta*, *Journal of Fluid Mechanics*, 890, A2 (2020)
39. *In Silico* Design Enables the Rapid Production of Surface-Active Colloidal Amphiphiles
T. I. Morozova, V. E. Lee, N. Bizmark, S. S. Datta, R. K. Prud'homme, A. Nikoubashman, R. D. Priestley, *ACS Central Science*, 6, 166 (2020)
38. Pore-scale flow characterization of polymer solutions in microfluidic porous media
C. A. Browne, A. Shih, S. S. Datta*, *Small*, 16, 1903944 (2020)
37. Confinement and activity regulate bacterial motion in porous media
T. Bhattacharjee and S. S. Datta*, *Soft Matter*, 15, 9920 (2019)
36. Scaling law for cracking in shrinkable granular packings
H. J. Cho and S. S. Datta*, *Physical Review Letters*, 123, 158004 (2019)
35. Transport of polymer colloids in porous media
N. Bizmark, J. Schneider, E. K. De Jong, S. S. Datta*, book chapter in *Polymer Colloids*, RSC press (2019)
34. Controlling capillary fingering using pore size gradients in disordered media
N. B. Lu, C. A. Browne, D. B. Amchin, J. K. Nunes, S. S. Datta*, *Physical Review Fluids* 4, 084303 (2019)
Selected as an Editor's Suggestion in *Physical Review Fluids*.
33. Crack formation and self-closing in shrinkable, granular packings
H. J. Cho, N. B. Lu, M. P. Howard, R. A. Adams, S. S. Datta*, *Soft Matter* 15, 4689 (2019)
32. Bacterial hopping and trapping in porous media
T. Bhattacharjee and S. S. Datta*, *Nature Communications* 10, 2075 (2019)
31. Cooperative size sorting of deformable particles in porous media
M. G. O'Connell†, N. B. Lu†, C. A. Browne†, S. S. Datta*, *Soft Matter* 15, 3620 (2019)
30. High-molecular-weight polymers from dietary fiber drive aggregation of particulates in the murine small intestine
A. Preska Steinberg, S. S. Datta, T. Naragon, J. C. Rolando, S. R. Bogatyrev, R. F. Ismagilov, *eLife* 8, e40387 (2019)
29. Adsorption and denaturation of structured polymeric nanoparticles at an interface
C. Tian, J. Feng, H. J. Cho, S. S. Datta, R. K. Prud'homme, *Nano Letters* 18, 4854 (2018)
28. Suppressing viscous fingering in structured porous media
H. S. Rabbani, D. Or, Y. Liu, C-Y Lai, N. B. Lu, S. S. Datta, H. A. Stone, and N. Shokri, *PNAS* 115, 4833 (2018)
27. Microfluidic Model Porous Media: Fabrication and Applications
A. Anbari, H-T Chien, S. S. Datta*, W. Deng, D. A. Weitz, and J. Fan*, *Small* 14, 1703575 (2018)



Before Princeton (†Equal contribution)

26. Polymers in the gut compress the colonic mucus hydrogel
S. S. Datta, A. Preska Steinberg, and R. F. Ismagilov, *PNAS* 113, 7041 (2016)
25. Individually addressable arrays of replica microbial cultures enabled by splitting SlipChips
L. Ma, S. S. Datta, M. Karymov, Q. Pan, S. Begolo, and R. F. Ismagilov, *Integrative Biology* 6, 796 (2014)
24. Breakup of fluids in steady-state two-phase flow through a porous medium
S. S. Datta, J. B. Dupin, and D. A. Weitz, *Physics of Fluids* 26, 062004 (2014)
Highlighted in the textbook "Multiphase Flow in Permeable Media: A Pore-Scale Perspective" by M. J. Blunt.
23. Mobilization of a trapped non-wetting fluid from a three-dimensional porous medium
S. S. Datta, T. S. Ramakrishnan, and D. A. Weitz, *Physics of Fluids* 26, 022002 (2014)
Highlighted in the textbook "Multiphase Flow in Permeable Media: A Pore-Scale Perspective" by M. J. Blunt.
22. Double emulsion templated solid microcapsules: mechanics and controlled release
S. S. Datta†, A. Abbaspourrad†, E. Amstad, J. Fan, S. H. Kim, M. Romanowsky,
H. C. Shum, B. Sun, A. S. Utada, M. Windbergs, S. Zhou, and D. A. Weitz,
Advanced Materials 26, 2205 (2014) *Equal contribution
21. The microfluidic post-array device: high throughput production of single emulsion drops
E. Amstad, S. S. Datta, and D. A. Weitz, *Lab on a Chip* 14, 705 (2014)
20. Ultrathin shell double emulsion-templated giant unilamellar lipid vesicles
with controlled microdomain formation
L. R. Arriaga, S. S. Datta, S. H. Kim, E. Amstad, F. Monroy, and D. A. Weitz, *Small* 10, 950 (2014)
19. Controlling the morphology of polyurea microcapsules using microfluidics
I. Polenz, S. S. Datta, and D. A. Weitz, *Langmuir* 30, 13405 (2014)
18. Spatial fluctuations of fluid velocities in flow through a three-dimensional porous medium
S. S. Datta, H. Chiang, T. S. Ramakrishnan, and D. A. Weitz, *Physical Review Letters* 111, 064501 (2013)
17. Expansion and rupture of charged microcapsules
S. S. Datta†, A. Abbaspourrad†, and D. A. Weitz, *Materials Horizons* 1, 92 (2013)
16. Drainage in a model stratified porous medium
S. S. Datta and D. A. Weitz, *EPL* 101, 14002 (2013)
15. Visualizing multiphase flow and trapped fluid configurations in a model three-dimensional porous medium
A. T. Krummelt, S. S. Datta†, S. Munster, and D. A. Weitz, *AIChE Journal* 59, 1022 (2013)
14. Controlling release from pH-responsive microcapsules
A. Abbaspourrad†, S. S. Datta†, and D. A. Weitz, *Langmuir* 29, 12697 (2013)
13. Thermally switched release from nanoparticle colloidosomes
S. Zhu†, J. Fan†, S. S. Datta, X. Guo, M. Guo, and D. A. Weitz, *Advanced Functional Materials* 23, 5925 (2013)
12. Microfluidic fabrication of stable gas-filled microcapsules for acoustic contrast enhancement
A. Abbaspourrad†, W. J. Duncanson†, N. Lebedeva, S. H. Kim, A. Zhushma, S. S. Datta,
S. S. Sheiko, M. Rubinstein, and D. A. Weitz, *Langmuir* 29, 12352 (2013)
11. Delayed buckling and guided folding of inhomogeneous capsules
S. S. Datta†, S-H Kim†, J. Paulose†, A. Abbaspourrad, D. R. Nelson, and D. A. Weitz,
Physical Review Letters 109, 134302 (2012)



10. Rheology of attractive emulsions
S. S. Datta, D. D. Gerrard, T. S. Rhodes, T. G. Mason, and D. A. Weitz, *Physical Review E* 84, 041404 (2011)
9. Controlled buckling and crumpling of nanoparticle-coated droplets
S. S. Datta, H. C. Shum, D. A. Weitz, *Langmuir*, 26, 18612 (2010)
8. Wetting and energetics in nanoparticle etching of graphene
S. S. Datta, *Journal of Applied Physics* 108, 024307 (2010)
7. Gate coupling to nanoscale electronics
S. S. Datta, D. R. Strachan, A. T. Johnson, *Physical Review B* 79, 205404 (2009)
6. Crystallographic etching of few-layer graphene
S. S. Datta, D. R. Strachan, S. M. Khamis, A. T. Johnson, *Nano Letters* 8, 1912 (2008)
5. Surface potentials and layer charge distributions in few-layer graphene films
S. S. Datta, D. R. Strachan, E. J. Mele, A. T. Johnson, *Nano Letters* 9, 7 (2009)
4. Real-time TEM imaging of the formation of crystalline nanoscale gaps
D. R. Strachan, D. E. Johnston, B. S. Guiton, S. S. Datta, P. K. Davies, D. A. Bonnell, A. T. Johnson, *Physical Review Letters* 100, 056805 (2008)
3. Electrostatic force microscopy of nanofibers and carbon nanotubes:
Quantitative analysis using theory and experiment
S. S. Datta, C. Staii, N. J. Pinto, D. R. Strachan, A. T. Johnson, *MRS Proceedings* 1025-B13-03 (2007)
2. Functionalized carbon nanotubes for detecting viral proteins
Y-B Zhang, M. Kanungo, A. J. Ho, P. Freimuth, D. van der Lelie, M. Chen, S. M. Khamis, S. S. Datta, A. T. Johnson, B. Panessa-Warren, J. A. Misewich, S. S. Wong, *Nano Letters* 7, 3086 (2007)
1. Detection of viral proteins using human receptor functionalized carbon nanotubes
M. Chen, S. M. Khamis, S. S. Datta, Y-B Zhang, M. Kanungo, A. J. Ho, P. Freimuth, D. van der Lelie, A. T. Johnson, J. A. Misewich, S. S. Wong, *MRS Proceedings* 1065-QQ04-05 (2007)

Selected Invited Talks

- April 2021: To be given at International Microfluidics and Energy Symposium
- April 2021: To be given at Johns Hopkins University, Chemical and Biomolecular Engineering, Baltimore MD
- December 2020: To be given at Brown University, Center for Fluids Mechanics, Providence RI (virtual)
- November 2020: To be given at Journal of Non-Newtonian Fluid Mechanics Virtual Seminar Series (virtual)
- November 2020: Keynote lecture to be given at the AIChE Annual Meeting, San Francisco CA (virtual)
- October 2020: To be given at Rice University, Chemical and Biomolecular Engineering, Houston TX (virtual)
- October 2020: To be given at Okinawa Institute of Science and Technology, Okinawa Japan (virtual)
- October 2020: To be given at Yale University, Mechanical Eng. and Materials Science, New Haven CT (virtual)
- October 2020: To be given at University of Illinois, Materials Science, Urbana-Champaign IL (virtual)
- September 2020: To be given at California Institute of Technology, Frontiers of Chemical Engineering Symposium, Pasadena CA (virtual)
- September 2020: To be given at the Annual Meeting of the Society of Engineering Science (virtual)
- September 2020: To be given at University of Virginia, Mechanical and Aerospace Engineering, Charlottesville VA (virtual)
- September 2020: To be given at Rockefeller University, New York NY (virtual)
- September 2020: "Life in a tight spot: Bacterial motility in heterogeneous media", Given at Technion-Israel Institute of Technology, Physics, Haifa Israel (virtual)



- August 2020: "Life in a tight spot: Bacterial motility in heterogeneous media"
Given at BPPB Virtual Biological Physics/Physical Biology Seminar Series (virtual)
- July 2020: "Heterogeneous Dynamics in Porous Media: from Gels to Cells"
Lecture given at Unilever R&D (virtual)
- June 2020: "Life in a tight spot: How bacteria move in heterogeneous media"
Princeton Center for the Physics of Biological Function Summer School (virtual)
- June 2020: "Life in a tight spot: Transport and collective behavior of bacteria in heterogeneous media"
Keynote lecture given at ACS Colloids and Surface Science Symposium (virtual)
- February 2020: "Life in a tight spot: Bacterial motility in porous media",
Yale University, Quantitative Biology Institute, New Haven CT
- December 2019: "Heterogeneous Dynamics in Porous Media: from Gels to Cells",
New York University, Center for Soft Matter Research, New York NY
- November 2019: "Cracking and self-healing of shrinkable granular media",
SPWLA Porous Media: Structure, Flow, and Dynamics workshop, Cambridge MA
- October 2019: "Heterogeneous Dynamics in Porous Media: from Gels to Cells",
MIT Soft Materials Structures and Devices Seminar, Cambridge MA
- October 2019: "Heterogeneous Dynamics in Porous Media: from Gels to Cells",
Cornell University, Chemical and Biomolecular Engineering, Ithaca NY
- October 2019: "In a tight spot: Heterogeneous Transport in Porous Media",
Annual Meeting of the Society of Engineering Science, St Louis WA
- September 2019: "Heterogeneous Dynamics in Porous Media: from Gels to Cells",
Levich Institute for Physico-Chemical Hydrodynamics, CCNY, New York NY
- May 2019: "Bacterial Hopping and Trapping in Porous Media",
16th Annual Conference on Frontiers in Applied and Computational Mathematics, Newark NJ
- May 2019: "Heterogeneous dynamics of cells and gels in complex spaces",
MIT Physical Mathematics Seminar, Cambridge MA
- May 2019: "Desiccation cracking of shrinkable granular media",
MIT "Clays, New Perspectives, Challenges & Opportunities" workshop, Cambridge MA
- April 2019: "Dynamics of cells and gels in complex spaces", Tufts University, Physics, Somerville MA
- April 2019: "Dynamics of cells and gels in complex spaces",
University of Virginia, Chemical Engineering, Charlottesville VA
- April 2019: "Heterogeneous dynamics of cells and gels in complex spaces",
New Jersey Institute of Technology, Chemical and Materials Engineering, Newark NJ
- March 2019: "All Stressed Out: Cracking and Self-Healing of Shrinkable Granular Packings",
APS March Meeting, Boston MA
- November 2018: "Getting Out of a Tight Spot: Heterogeneous Transport in Porous Media",
George Washington University, Mechanical and Aerospace Engineering, Washington DC
- November 2018: "Stressing cells and gels: exploiting gradients in two different systems",
University of Maryland, Biophysics Seminar, College Park MD
- October 2018: "Life in a tight spot: bacterial communities in 3D porous media",
University of Florida Soft Matter Symposium, Gainesville FL
- August 2018: "Stressing Gels Out", Mid-Atlantic Soft Matter Workshop, Georgetown Univ., Washington DC
- July 2018: "Stressing Gels Out", Complex Fluids in Biological Systems workshop,
Banff International Research Station for Mathematical Innovation and Discovery
- July 2018: "Stressing Gels Out", Gordon Research Conference on Flow/Transport in Permeable Media
- April 2018: "Getting Out of a Tight Spot: Heterogeneous Transport in Porous Media",
City College of New York, Mechanical Engineering, New York NY
- April 2018: "Getting Out of a Tight Spot: Heterogeneous Transport in Porous Media",
Princeton University, Mechanical and Aerospace Engineering, Princeton NJ



- January 2018: "Soft materials in complex environments: from porous rocks to the gut", University of Pennsylvania, Physics, Philadelphia PA
- January 2018: "Soft materials in complex environments: from porous rocks to the gut", 8th Northeast Complex Fluids and Soft Matter Workshop, New York NY
- October 2017: "Complex fluids in the gut", Keynote lecture at AIChE Annual Meeting, Minneapolis MN

Patent Applications

- Bacteria in 3D porous media, S. S. Datta and T. Bhattacharjee, US Patent Application Filed on 4/28/20 (US Provisional Application Numbers 62/841,334 and 62/890,212)
- Polymeric compositions and related systems and methods for regulating biological hydrogels, R. F. Ismagilov, S. S. Datta, A. Preska Steinberg, S. R. Bogatyrev, US Patent Application Filed on 1/5/17 (US Provisional Application Numbers 62/275,757 and 62/309,753)
- Atomically precise nanoribbons and related methods, S. S. Datta, D. R. Strachan, S. M. Khamis, A. T. Johnson, Y. Dan, US Patent Application Filed on 6/1/09 (US Provision Application Number 12/995,562)

Professional Activities and Outreach

Referee for journals

Nature, Science, Science Advances, Proceedings of the National Academy of Sciences, Nature Communications, Physical Review Letters, Soft Matter, Advanced Materials, Angewandte Chemie, Journal of the American Chemical Society, Journal of Fluid Mechanics, AIChE Journal, Langmuir, ChemPhysChem, Microfluidics and Nanofluidics, ACS Applied Materials and Interfaces, Physical Review Materials, Physical Review Applied, Biophysical Journal, Advances in Water Resources, Journal of Membrane Science, eLife, Biotechnology and Bioengineering, Applied Physics Letters, Lab on a Chip, Physical Review Fluids, Critical Reviews in Environmental Science and Technology, Physical Review E, Accounts of Chemical Research, Water Resources Research, Journal of Physical Chemistry Letters

Organizer/co-organizer of sessions at scientific meetings

- "Active matter in complex environments" focus session, APS March Meeting, 2020, 2021
- "Soft materials in disordered environments" focus session, APS March Meeting, 2019
- "Polymer-mediated structural transitions in soft materials" focus session, APS March Meeting, 2019
- "Swelling and shrinking porous media" focus session, InterPore Meeting, 2019
- "Complex Fluid Flows in Porous Media" focus session, APS Fluid Dynamics Meeting, 2018

Chair/co-chair of sessions at scientific meetings

- "Active and Biological Materials" sessions, Society of Rheology, 2021
- "Microbial Interactions with Biomaterials and Host Cells" session, AIChE Meeting, 2020
- "Microfluidic and Microscale Flows" session, AIChE Meeting, 2020
- "Fundamentals of Interfacial Phenomena" session, AIChE Meeting, 2020
- "Microfluidic and Confined Flows" session, Society of Rheology Meeting, 2019
- "Microfluidic and Nanoscale Flows" session, AIChE Meeting, 2019
- "Jamming/Gelation/Rheology" session, ACS Colloids and Surfaces Symposium, 2019
- "Novel Complex Flows" session, AIChE Meeting, 2018
- "Drops and Bubbles" session, APS March Meeting, 2018
- "Complex Fluids: Macromolecules" session, AIChE Meeting, 2017
- "Complex Fluids: Self & Directed Assembly" session, AIChE Meeting, 2017

Societal committees

- Selection committee, American Physical Society Apker Prize, 2018-2021



Grant proposal reviewer

- NSF CMMI Biomechanics and Mechanobiology program, 2020
- New Jersey Alliance for Clinical and Translational Research (NJACTS), 2020
- German Research Foundation (DFG), 2019
- Netherlands Organization for Scientific Research (NWO), Applied and Engineering Sciences, 2019
- ACS Petroleum Research Fund, 2019, 2020
- DOE Office of Basic Energy Sciences, Separation Science program, 2018
- NSF CBET Fluid Dynamics panel, 2018
- French National Research Agency (Pathophysiology), 2017

Other outreach

- Co-organizer for "Viscoelastic flow instabilities and elastic turbulence" workshop at Princeton PCTS, 2021
- Co-organizer, "Soft Matter For All: Celebrating Diversity and Creativity in Soft Matter" symposium, 2020
- Lecturer, Princeton Center for the Physics of Biological Function Summer School, 2020
- Lecturer and panelist, Princeton University Materials Academy, 2019, 2020
- Participant, Princeton Día de la Ciencia Science Day, 2018, 2019
- Co-organizer for "Biologic and soft materials" session at Princeton PRISM Research Symposium, 2019
- Co-organizer for "Transport in Disordered Environments" workshop at Princeton PCTS, 2019

Service at Princeton

- Member, CBE Target of Opportunity / senior faculty search committee, September 2020-present
- Member, SEAS BioEngineering faculty search committee, May 2020-present
- Member, Executive Committee, Materials Science & Engineering Program, July 2019-June 2022
- Member, Executive Committee, Engineering Physics Program, July 2019-June 2023
- Member, University Committee on the Library and Computing, July 2019-June 2022
- CBE junior advising, September 2020-present
- BSE freshman advising, September 2018-present
- Organizer, Princeton Soft Materials Coffee Hour, 2018-present
- Member, Executive Committee for the Program in Technology & Society, July 2018-July 2021
- CBE sophomore advising, September 2019-May 2020
- Energy storage working group, Andlinger Center for Energy and the Environment, Summer 2019
- Lecturer, PCCM Research Experience for Undergraduates, Summer 2019
- Lecturer, Princeton University Materials Academy, Summer 2019
- Member, Andlinger Center Grant Proposal review committee, Spring 2019
- PRISM/PCCM seminar organizer, Spring 2019
- Member, SEAS Innovation Grant review committee, Fall 2018
- Member, Andlinger Center Distinguished Postdoctoral Fellow selection committee, Fall 2018
- CBE departmental seminar organizer, Fall 2018
- Member, CBE graduate affairs and admissions committee, Academic Year 2017-2018, 2018-2019
- Member, CBE junior faculty search committee, Academic Year 2017-2018, 2019-2020
- Member, CBE website committee, Academic Year 2017-2018
- Member, CBE admitted freshman recruitment, Academic Year 2017-2018

Thesis Committees

- 2020-present: Omar Yehia, MAE (PhD student); advisor Howard Stone
- 2020-present: Paul Kaneeli, MAE (PhD student); advisor Howard Stone
- 2020-present: Christopher Ushay, CBE (PhD student); advisor PT Brun
- 2020-present: Avery Agles, CBE (PhD student); advisor Ian Bourg
- 2020-present: Ye Joon Seo, CBE (PhD student); advisor Rodney Priestley



- 2019-present: Matthew Black, Quantitative & Computational Biology (PhD student); advisor Josh Shaevitz
- 2019-present: Katelyn Randazzo, CBE (PhD student); advisor Rodney Priestley
- 2019-present: Jared Klein, CBE (PhD student); advisor Rick Register
- 2019-present: Sayantan Dutta, CBE (PhD student); advisor Stas Shvartsman
- 2019-present: Shuwen Yue, CBE (PhD student); advisor Athanassios Panagiotopoulos
- 2019: Ke-Chih Lin, Physics (PhD student); advisors James Sturm and Bob Austin
- 2018-present: Trevor Jones, CBE (PhD student); advisor PT Brun
- 2018-present: Bernardo Gouveia, CBE (PhD student); advisor Howard Stone
- 2018-present: Ari Gilman, CBE (PhD student); advisor Bruce Koel
- 2018-present: Nick Caggiano, CBE (PhD student); advisors Rodney Priestley and Robert Prud'homme
- 2018-2020: Chang Tian, CBE (PhD student); advisor Robert Prud'homme
- 2018-2019: Robert Pagels, CBE (PhD student); advisor Robert Prud'homme
- 2018-2019: Charles Watt, CBE (Undergraduate senior thesis student); advisor Craig Arnold
- 2018-2019: Stephen Wong, CBE (Undergraduate senior thesis student); advisor Craig Arnold
- 2018: Michail Alifierakis, CBE (PhD student); advisor Ilhan Aksay
- 2017-present: Kurt Ristroph, CBE (PhD student); advisor Robert Prud'homme
- 2017-present: Leon Wang, CBE (PhD student); advisor Robert Prud'homme
- 2017-present: Lena Barrett, CBE (PhD student); advisor Celeste Nelson
- 2017-present: Michael Palmer, CBE (PhD student); advisor Celeste Nelson
- 2017-present: Douglas Scott, CBE (PhD student); advisors Rodney Priestley and Robert Prud'homme
- 2017-2020: Eric Teitelbaum, Architecture (PhD student); advisor Forrest Meggers
- 2017-2018: Samuel Smiddy, CBE (Undergraduate senior thesis student); advisor Howard Stone

Teaching and Mentoring at Princeton

Course instructor

- Fall 2020: CBE 503 – Graduate-Level Advanced Thermodynamics
- Spring 2020: CBE 430 – Squishy Engineering: Using Soft Materials to Solve Hard Problems;
Overall student rating: 4.83/5; evaluated as “amazing”, “one of the best professors I've had”, and “a course that you should definitely take”
- Fall 2019: CBE 503 – Graduate-Level Advanced Thermodynamics;
Overall student rating: 4.43/5; evaluated as “best lectures I have ever had”
- Fall 2018: CBE 503 – Graduate-Level Advanced Thermodynamics;
Overall student rating: 4.47/5; evaluated as “probably the best lecture I had the entire semester”
- Fall 2017: CBE 503 – Graduate-Level Advanced Thermodynamics;
Overall student rating: 4.64/5; evaluated as “amazing”

Postdoctoral researchers mentored

- July 2020-present: R. Konane Bay (PhD, U. Massachusetts Amherst; Presidential Postdoctoral Fellow)
- June 2019-present: Jean-François Louf (PhD, Aix-Marseille University, France)
- June 2018-present: Tapomoy Bhattacharjee (PhD, U. of Florida; Andlinger Center for Energy and the Environment Distinguished Postdoctoral Fellow, 2018 Andlinger E-affiliates Poster Award winner)
- May 2018-present: Navid Bizmark (PhD, U. of Waterloo; PCCM Fellow co-advised with Rod Priestley)
- April 2018-July 2018: Maziar Derakhshandeh (PhD, U. of British Columbia; NSERC Postdoctoral Fellow); went on to next position as a Scientist at Mondelez International, Inc.
- October 2017-June 2019: Jeremy Cho (PhD, MIT; 2019 PCTS Poster Award winner); went on to next position as an Assistant Professor at the University of Nevada, Las Vegas.



Graduate students advised

- September 2019-present: Galen Mandes (MSE candidate in CBE)
- January 2019-present: Jenna Ott (PhD candidate in CBE; NSF GRFP Fellow)
- January 2019-present: Joanna Schneider (PhD candidate in CBE; co-advised with Rodney Priestley; 2019 Andlinger ExxonMobil Best Poster Award winner, 2020 Princeton Environmental Institute Mary & Randall Hack '69 Graduate Award winner)
- January 2018-present: Daniel Amchin (PhD candidate in CBE; SEAS travel funding recipient, APS DBIO Travel Award winner)
- January 2018-present: Christopher Browne (PhD candidate in CBE; NSF GRFP Fellow; 2019 Princeton Environmental Institute Mary & Randall Hack '69 Graduate Award winner, SEAS travel funding recipient, CBE SABIC Best First Proposition Award winner)
- April 2017-present: Nancy Lu (PhD candidate in CBE; 2019 Princeton Environmental Institute Mary & Randall Hack '69 Graduate Award winner, SEAS Travel Award winner, 2018 Andlinger ExxonMobil Best Poster Award winner, APS GSOFT Travel Award winner, APS DFD Travel Award winner, SEAS Award for Excellence)

Undergraduate student research mentored

- September 2020-present: MaryKate Neff (CBE, Senior thesis)
- September 2020-present: Selena Chiu (CBE, Junior thesis)
- June 2020-present: Richard Huang (CBE, ReMatch+ program)
- June 2020-present: Cristian Arens (CBE, Reiner G. Stoll Undergraduate Summer Fellowship awardee, Junior thesis)
- June-August 2020: Kevin Yeung (CBE, ReMatch+ program)
- September 2018-May 2020: Audrey Shih (CBE, Junior work/Senior thesis, Andlinger summer internship; DuPont Senior Thesis Fellowship Grant awardee, 2019 Andlinger PSEG Best Poster awardee, NSF GRFP awardee, MSE Outstanding Senior Thesis awardee, PRISM Best Senior Thesis awardee, SEAS Lore von Jaskowsky Memorial Prize awardee)
- February 2018-May 2020: Maggie O'Connell (CBE, ReMatch+ program, Sophomore/Junior/Senior thesis; DuPont Senior Thesis Fellowship Grant awardee, SEAS George J. Muller awardee)
- Summer 2019-May 2020: Kimberly Lu (CBE, OURSIP program)
- Fall 2019-May 2020: Glenda Chen (CBE, Senior thesis)
- September 2018-May 2019: Emily de Jong (CBE, Senior thesis; SEAS Hayes-Palmer prize awardee, NSF GRFP awardee)
- September 2018-May 2018: Emmanuel Mintah (CBE, Sophomore work)
- Summer 2018: Rebekah Adams (CBE, ReMatch+ program)
- Summer 2018: Shalaka Madge (CBE, OURSIP program)
- September 2017-May 2019: Rhea Braun (CBE, Junior work/Senior thesis)
- September 2017-May 2018: Florence Odigie (CBE, Sophomore work)
- August 2017-May 2018: Nathanael Ji (CBE, Senior thesis; Princeton Research Day Poster awardee)

Visiting student research mentored

- Summer 2018, Fall 2019: Nadine Ziegler (PhD student, RU Bochum, REACH & PR.INT programs)
- Summer 2019: Felix Kratz (MS student, TU Dortmund, REACH program; APS Distinguished Student Award)
- Summer 2018: Anvitha Sudhakar (Visiting Undergraduate from IIT Bombay, ISIP program)

