

CONTACT INFORMATION	Yale University Department of Applied Physics & Energy Sciences Institute New Haven, CT, USA	<i>E-mail:</i> john.sous@yale.edu <i>Webpage:</i> jsous.github.io
CURRENT POSITION	Yale University Assistant Professor of Applied Physics and Physics Member of the Energy Sciences Institute (ESI), Yale Quantum Institute (YQI), Yale Institute for Foundations of Data Science (FDS), and the Wu Tsai Institute Fellow of Pauli Murray College	
RESEARCH INTERESTS	Physics: Statistical Mechanics, Condensed Matter, Computational Physics Artificial Intelligence: Foundations of Deep Learning, Generative AI, Reinforcement Learning, Science of Scaling, AI for Science Machine Learning: High-Dimensional Statistics and Non-Convex Optimization Quantum Simulation and Computation Materials Science: Quantum Materials	
EMPLOYMENT	Yale University Assistant Professor, Department of Applied Physics (primary) and Physics (secondary; since January 2025)	2024–present
	University of California, San Diego Assistant Professor, Department of Chemistry and Biochemistry	2023–2024
POSTDOCTORAL TRAINING	Stanford University Moore Postdoctoral Fellow, Department of Physics, Geballe Laboratory for Advanced Materials, and Stanford Institute for Theoretical Physics Mentor: Prof. Steven A. Kivelson	2022–2023
	Columbia University MRSEC Postdoctoral Fellow, Departments of Physics and Chemistry, and Center for Precision Assembly of Superstratic and Superatomic Solids Mentors: Prof. Andrew J. Millis and Prof. David R. Reichman	2019–2022
EDUCATION	The University of British Columbia Ph.D., Physics Advisers: Prof. Mona Berciu and Prof. Roman V. Krems; part of the doctoral research was carried out at Harvard University with Prof. Eugene Demler and Dr. Hossein R. Sadeghpour	February 2019
	University of Waterloo M.Sc., Chemical Physics Adviser: Prof. Marcel Nooijen	October 2013

HONORS	• 2025 Nevill F. Mott Prize, awarded at the International Conference on Strongly Correlated Electron Systems, sponsored by Taylor & Francis • 2024 AFOSR Young Investigator Program Award • 2022 Moore Foundation Postdoctoral Fellowship, Stanford University • 2022 ACS Physical Chemistry Division Young Investigator Award • 2019–2022 NSF MRSEC Postdoctoral Fellowship, Columbia University • 2017–2018 Institute for Theoretical Atomic, Molecular, and Optical Physics Visiting Fellowship, Harvard University
SCHOLARLY WORK	As of October 2026: - 39 peer-reviewed publications (32 journal articles, 1 journal article in press, 6 conference papers; among them 1 Nat. Commun., 1 Phys. Rev. X, 5 Phys. Rev. Lett., 2 Nano Lett., 4 NeurIPS, 1 COLM, 1 ACL Findings) spanning physics, chemistry and machine learning. - 7 workshop papers and 9 manuscripts under review. - > 1200 citations and an h-index of 20 according to Google Scholar. - More than 35 invited talks, seminars and panels since 2017. - The full list of publications is available on Google Scholar.
SERVICE (SELECTED)	• 2027 Co-organizer, Foretelling the Future of AI through Mathematical Foundations: From Learning Architectures to Trustworthy Agents (second MATH4AI workshop), AAAI 2027, Montréal • 2026 Discussion Leader, “Machine Learning and Quantum Sciences,” Quantum Science Gordon Research Conference • 2026 Main co-organizer, AI4Physics: An ICML 2026 Workshop on AI for Physics, the first International Conference on Machine Learning (ICML) workshop on AI for physics, Seoul • 2025 Co-organizer, AI + Physics Workshop, The Graduate Center, City University of New York (CUNY) • 2020 Organizer and co-chair, invited session <i>Electron-Phonon Coupling and High-Temperature Superconductivity</i>, Group on Statistical & Nonlinear Physics (GSNP), American Physical Society (APS) March Meeting

A detailed curriculum vitae is available upon request.