

# 7th Annual Georgia Tech Postdoctoral Research Symposium

Noon to 5 p.m. ET, Friday, March 18, 2022

Parker H. Petit Institute for Bioengineering and Bioscience (IBB)

Suddath Room (1128)

Time (ET)	Event
11:30 a.m.	Set-Up
12:00 – 12:55 p.m.	Research Talk Session I
1:00 – 1:30 p.m.	Lightning Talk Session I
1:30 – 1:40 p.m.	Break
1:40 – 2:40 p.m.	Research Talk Session II
2:45 – 3:10 p.m.	Lightning Talk Session II
3:15 – 4:00 p.m.	Keynote Speaker
4:00 – 5:00 p.m.	Reception and Award Presentation

---

**Research Talk Session I: 12:00 – 12:55 p.m.**

	<b>Title</b>	<b>Presenter</b>	<b>College</b>
1.	Modeling and correcting bias in sequential evaluation	Jingyan Wang	Engineering
2.	Lipidome dynamics in an ovarian cancer mouse model	Olatomiwa Bifarin	Sciences
3.	Molecular simulation of adsorption and diffusion in nanoporous rigid amorphous materials	Raghuram Thyagarajan	Engineering
4.	Characterization of sulfur aerosols in Fairbanks, AK during extreme winter conditions	Kayane Dingilian	Sciences
5.	Halide perovskite photovoltaics: Tailoring interfaces to maximize the energy yield	Carlo Andrea Riccardo Perini	Engineering

**Lightning Talk Session I: 1:00 – 1:30 p.m.**

	<b>Title</b>	<b>Presenter</b>	<b>College</b>
6.	Antarctic krill ( <i>Euphausia Superba</i> ) kinematics in relation to chemical, physical and photic stimuli: From video analysis to an individual-based-model	Nicole Hellessey	Sciences
7.	PSP: A toolkit for efficient generation of 3D atomic-level polymer models	Harikrishna Sahu	Engineering
8.	Native protein structures and stabilities at nanomolar and picoliter quantities using triboelectric nanogenerator ion mobility-mass spectrometry	Daniel Vallejo	Sciences
9.	Efficient computation of conformal prediction set	Eugene Ndiaye	ISyE
10.	Are marine-terminating glaciers retreating due to climate change or natural variability?	John Erich Christian	Sciences

**Research Talk Session II: 1:40 – 2:40 p.m.**

	<b>Title</b>	<b>Presenter</b>	<b>College</b>
11.	Study of the interfacial shear strength of carbon nanotube yarn with matrix resins after chemical treatment	Keenan Mintz	Engineering
12.	Effects of acute stress on rigid learning, flexible learning and value-based decision-making in spatial navigation	Qiliang He	Sciences
13.	Unravelling water-ion dynamics in reverse osmosis membranes with nuclear magnetic resonance spectroscopy	Mahsa Abbaszadeh	Engineering
14.	Spatially resolved lipidomic profiling of ovarian cancer using ultrahigh resolution mass spectrometry imaging	Xin Ma	Sciences
15.	Development of a stochastic ice sheet model	Vincent Verjans	Sciences

**Lightning Talk Session II: 2:45 – 3:10 p.m.**

	<b>Title</b>	<b>Presenter</b>	<b>College</b>
16.	Toward non-invasive, label-free tumor detection of human brains during excision surgeries using epi-mode optical phase microscopy	Zhe Guang	Engineering
17.	New models generalizing permutations	Orli Herscovici	Sciences
18.	Vapor phase infiltration for advanced chemical separations: Process design for hybrid organic-inorganic membranes	Emily McGuinness	Engineering
19.	Interaction energy contribution of H-bonded synthetic hachimoji DNA nucleobase pairs	Rameshwar Lal Kumawat	Sciences



## Keynote Speaker: Quinn A. Spadola, PhD

Quinn Spadola is Associate Director for Education and Outreach for the NSF-supported National Nanotechnology Coordinated Infrastructure (NNCI), Education and Outreach Coordinator for the Southeastern Nanotechnology Infrastructure Corridor NNCI site, and an Academic Professional in the Institute for Electronics and Nanotechnology.

Prior to joining Georgia Institute of Technology, Quinn was Education and Outreach Coordinator, and Technical Advisor to the Director in the National Nanotechnology Coordination Office (NNCO). The NNCO conducts public engagement on behalf of the National Nanotechnology Initiative and provides technical and administrative support to the Nanoscale Science, Engineering, and Technology Subcommittee of the White House National Science and Technology Council and the interagency nanotechnology community. She joined that office as an AAAS Science and Technology Policy Fellow in 2014 and stayed on as contract staff after completing her fellowship. There she worked to educate students, teachers, and the general public about nanotechnology through conferences, contests, networks, videos, and podcasts.



Quinn was inspired to go into education and outreach while working on her PhD in Physics, which she earned from Arizona State University in 2008. Following her PhD, she received a MFA in Science and Natural History Filmmaking from Montana State University in 2011. Always having an interest in going beyond the “gee whiz, that’s cool” aspect of science outreach to include the politics and historical context behind science research, the videos she made in film school integrated science, her experience as a female scientist, and the historical context of gender and STEM.

When she’s not working to excite people about nanotechnology, Quinn enjoys watching YouTube science channels (sometimes with her son) and trying different flavors of potato chips.