Jonathan Simone   *Curriculum Vitae*

CONTACT INFORMATION	School of Mathematics Georgia Institute of Technology 686 Cherry Street Atlanta, GA 30332-0160 USA	Website: https://jonathansimone.math.gatech.edu/ Email: jsimone7@gatech.edu Phone: 917-971-0934

RESEARCH INTERESTS

Low-dimensional topology
Constructions of exotic 4-manifolds
Symplectic 4-manifolds and contact 3-manifolds
Knot Theory

EMPLOYMENT

Georgia Institute of Technology, Atlanta, GA   2021 – present
Visiting Assistant Professor of Mathematics

University of Massachusetts Amherst (UMass), Amherst, MA   2018 – 2021
Visiting Assistant Professor of Mathematics

EDUCATION

University of Virginia (UVa), Charlottesville, VA   May 2018
Doctor of Philosophy in Mathematics
Advisor: Thomas E. Mark

Hunter College, New York, NY   June 2011
Master of Arts in Pure Mathematics

New York University, New York, NY   May 2009
Bachelor of Arts in Mathematics, Cum Laude
Minor in Business Studies, Minor in Computer Applications

AWARDS

Distinguished Teaching Award Finalist, UMass   2020, 2021
All University Graduate Teaching Award, UVa   2017

PUBLICATIONS

Using rational homology circles to construct rational homology balls
Topology and its Applications, Vol. 291 (2021)

Symplectically replacing plumbings with Euler characteristic 2 4-manifolds
Journal of Symplectic Geometry, Vol. 18, No. 5 (2020), pp. 1285-1318

PREPRINTS

Geography of symplectic Lefschetz fibrations and rational blowdowns
with R. Inanc Baykur and Mustafa Korkmaz.

On the nonorientable 4-ball genus of torus knots
with Fraser Binns, Sungkyung Kang, and Paula Truöl.

Classification of torus bundles that bound rational homology circles
Submitted

Tight contact structures on some plumbed 3-manifolds
Submitted

RESEARCH TALKS

AMS Fall Southeastern Section Meeting, University of South Alabama	Nov 2021
Research Horizons Seminar, Georgia Tech	Nov 2021

Working Seminar (3-talk series), Georgia Tech	Oct 2021
Algebra-Topology Seminar, University of Alabama	Oct 2021
Geometry Topology Seminar, Georgia Tech	Sep 2021
Low-dimensional Topology and Symplectic Geometry Weekend (remote)	Apr 2021
Geometry Seminar, University of Virginia	Dec 2020
Topology Seminar, Brandeis University	Oct 2020
AMS Fall Western Sectional Meeting, UC Riverside	Nov 2019
Geometry and Topology Seminar, UMass	Oct 2019
Moab Topology Conference, Moab UT	May 2019
Symp. Geom., Gauge Theory, and Categorif. Seminar, Columbia University	Apr 2019
Geometry and Topology Seminar, UMass	Sep 2018
Geom. Strs. on 3- and 4-manifolds, InterUniversity Centre, Dubrovnik, HR	Jun 2018
Joint Mathematics Meetings, San Diego, CA	Jan 2018
Tech Topology Conference, Georgia Tech	Dec 2017
Joint Mathematics Meetings, Atlanta, GA	Jan 2017
Perspectives in Topology and Geometry of 4-manifolds, Dubrovnik, HR	Jun 2016
AMS Southeastern Sectional Meeting, University of Georgia	Mar 2016
Geometry Seminar, UVa	Nov 2016

RESEARCH MENTORING EXPERIENCE

Doctoral Dissertation Committee Member, UMass Amherst
Equivariant surgeries and irreducible embeddings of surfaces in dimension four
Andrew Havens   2021

Undergraduate Senior Thesis Co-Chair, UMass Amherst
Knot Theory and Invariants, Caifei Fan   2020-2021

Undergraduate Independent Study, UMass Amherst
Complex Variables, Lucy Grossman	Spring 2020
Theory of Manifolds, Caifei Fan	Spring 2020
Theory of Surfaces, Caifei Fan	Fall 2019

TEACHING EXPERIENCE

Georgia Institute of Technology, Atlanta, GA
Linear Algebra	Spring 2022
Differential Calculus	Fall 2021

University of Massachusetts Amherst, Amherst, MA
Complex Variables	Spring 2020
Advanced Calculus	Fall 2019
Linear Algebra	Spring 2019, 2020 & Fall 2020
Multivariable Calculus	Fall 2018

University of Virginia, Charlottesville, VA
Financial Mathematics	Spring 2015
Applied Calculus I	Fall 2013, Spring 2014
Applied Calculus II	Fall 2016
Calculus I	Fall 2014
Calculus I (flipped)	Fall 2017, Spring 2018
Calculus II	Spring 2017
Calculus III	Fall 2015

CUNY John Jay College of Criminal Justice, New York, NY
College Algebra	Fall 2010, Spring 2012
Finite Mathematics	Spring 2011, Fall 2011
Pre-Calculus	Fall 2011
Calculus I	Spring 2011

Opportunity Programs at NYU, New York, NY
Calculus I Workshop   Summer 2011, 2012, 2013, 2014
Fall 2010, 2011, Winter 2012, Spring 2012

Quantitative Reasoning Workshop   Summer 2010, 2012, 2013
(Probability, Statistics)   Fall 2011, Spring 2011

Opportunity Programs at Barnard College, New York, NY
Pre-calculus   Summer 2014

Service

Tech Topology Conference 2021 Co-organizer	
Referee for Proceedings of the AMS	
UMass Geometry and Topology Seminar Co-organizer	Sep 2018 – May 2021
UVa Math Teaching Seminar Presentation	Oct 2017
UVa *Teaching as a Graduate Student* Workshop Facilitator	Aug 2017
UVa Math Outreach Ambassador	Fall 2014 – Spring 2017
UVa Math Circle Teaching Assistant	Fall 2017
UVa flipped Calculus I material developer	Summer 2017
UVa Math Teaching Mentor	2015 – 2016