

# GTA: Philadelphia 2024

## Conference Schedule

Held May 31—June 2 2024

Temple University—Science Education and Research Center (SERC),  
1925 N 12th St, Philadelphia, PA 19122

Abstracts for student talks are available at <https://math.temple.edu/events/conferences/gscagt/talks>.

### Friday, May 31

12:00–2:00	Registration SERC Lobby			
2:00–2:05	Opening Remarks SERC Room 116			
2:05–3:05	Plenary Talk A Gentle Introduction to Superrigidity <i>Nick Miller, University of Oklahoma</i> SERC Room 116			
3:05–3:30	Coffee/Tea Break SERC Lobby			
	SERC Room 110A	SERC Room 110B	SERC Room 116	SERC Room 108A
3:30–4:00	Twisted Number Field Counting* <i>Shilpi Mandal</i> <i>Emory University</i>	Deformation Spaces of Geometric Structures* <i>Gabe Lumpkin</i> <i>George Mason University</i>	What Is an Alternating Link?* <i>Susan Rutter</i> <i>CUNY Graduate Center</i>	Stability of Convex Spheres <i>Hunter Stufflebeam</i> <i>University of Pennsylvania</i>
4:15–4:45	An Analogue of Greenberg Conjecture for CM fields <i>Peikai Qi</i> <i>Michigan State University</i>	Large-Scale Geometry of Pure Mapping Class Groups of Infinite-Type Surfaces <i>Thomas Hill</i> <i>University of Utah</i>	Sharpness in Symplectic Topology <i>Spencer Cattalani</i> <i>Stony Brook University</i>	Realizing Pairs of Multicurves as Cylinders on Translation Surfaces <i>Juliet Aygun</i> <i>Cornell University</i>

\*Expository Talk

Saturday, June 1

9:00-9:30	<b>Breakfast and Registration</b> SERC Lobby			
9:30-9:35	<b>Announcements</b> SERC Room 116			
9:35-10:35	<b>Plenary Talk</b> <b>Morse Theory on a Point and a Stack of Broken Lines</b> <i>Hiro Lee Tanaka, Texas State University</i> SERC Room 116			
10:35-11:00	<b>Coffee/Tea Break</b> SERC Lobby			
	SERC Room 110A	SERC Room 110B	SERC Room 116	SERC Room 108A
11:00-11:30	<b>Simplicial Volume Entropy of Iwahori Subgroups</b> <i>Malachi Alexander</i> <i>UC Santa Cruz</i>	<b>Dehn Functions*</b> <i>Eleanor Rhoads</i> <i>Wesleyan University</i>	<b>Hochschild Homology of the Legendrian Contact DGA</b> <i>Alexander Simons</i> <i>UC Davis</i>	<b>Flexing and Branched Bending</b> <i>Cassandra Monroe</i> <i>UT Austin</i>
11:45-12:15	<b>Hyperbolic Groupoids with Totally Disconnected Unit Spaces and Their Associated Semigroups</b> <i>Josiah Owens</i> <i>Texas A&amp;M University</i>	<b>A Long Exact Sequence on the Composition of Dehn Twists</b> <i>Shuo Zhang</i> <i>University of Minnesota</i>	<b>Using Quandle Invariants to Distinguish Classical and Legendrian Knots*</b> <i>Peyton Wood</i> <i>UC Davis</i>	<b>Half-Spaces &amp; Einstein's Universe</b> <i>Pier-Olivier Rodrigue</i> <i>George Mason University</i>
12:30-1:00	<b>Interpolation in the Weighted Projective Space</b> <i>Shahriyar Roshan-Zamir</i> <i>University of Nebraska</i>	<b>On The Space of Holomorphic Differentials</b> <i>Margarita Bustos Gonzalez</i> <i>University of Iowa</i>	<b>Symplectic Billiard Table Evolution</b> <i>Lael Costa</i> <i>Penn State University</i>	<b>A Foliation on the Space of Framed Hyperbolic 3-Manifolds</b> <i>Matthew Zevenbergen</i> <i>Boston College</i>
1:00-2:15	<b>Lunch Break</b> SERC Lobby			
2:15-3:15	<b>Panel Discussion</b> <b>Career Building and Social Responsibility in Academia and Beyond</b> <i>Evelyn Lamb</i> <i>Michelle Lee</i> <i>Adriana Salerno</i> SERC Room 116			
3:15-3:30	<b>Coffee/Tea Break</b> SERC Lobby			
3:30-4:30	<b>Plenary Talk</b> <b>Complex Dynamics: the <math>\mathbb{R}</math> Real Story</b> <i>Sarah Koch, University of Michigan</i> SERC Room 116			
4:30-5:00	<b>Coffee/Tea Break</b> SERC Lobby			
5:00-5:30	<b>Special Session</b> <b>NSF Funding Q&amp;A</b> <i>Adriana Salerno, NSF Program Director</i> SERC Room 116			
6:30-9:00	<b>Banquet</b> Nam Phuong - 1100 Washington Ave, Philadelphia, PA 19147			

\*Expository Talk

## Sunday, June 2

9:00-9:30	<b>Breakfast</b> SERC Lobby				
9:30-9:35	<b>Announcements</b> SERC Room 116				
9:35-10:35	<b>Plenary Talk</b> <b>Interpolation Problems for Curves</b> <i>Isabel Vogt, Brown University</i> SERC Room 116				
10:35-11:00	<b>Coffee/Tea Break</b> SERC Lobby				
	SERC Room 110A	SERC Room 110B	SERC Room 116	SERC Room 108A	SERC Room 108B
11:00-11:30	Elliptic Curves, Modular Forms, and Modularity Theorems*  <i>Xiaoyu Huang</i> <i>CUNY Graduate Center</i>	Arithmeticity, Bounded Distance, and Coarse Geometry—All About Quasi-isometric Rigidity*  <i>Yushan Jiang</i> <i>CUNY Graduate Center</i>	Topological Obstructions to the Existence of a Resolution of the Singularities of a Variety Over a Field of Any Characteristic  <i>James Myer</i> <i>CUNY Graduate Center</i>	Orientation-Preserving Homeomorphisms of Euclidean Space Are Commutators  <i>Megha Bhat</i> <i>CUNY Graduate Center</i>	Categorization of Finite Field Polygons, and Why Graph Arguments Are Cooler than Algebra Ones  <i>Amanda Tran</i> <i>Tufts University</i>
11:45-12:15	Admissibility over Number Fields  <i>Deependra Singh</i> <i>University of Pennsylvania</i>	Equivariant Trees and Partition Complexes  <i>Maxine Calle</i> <i>University of Pennsylvania</i>	Juggling Virtual Braids and Links  <i>Ivy Stump</i> <i>Davidson College</i>	Contractibility of Teichmüller Space*  <i>Chaitanya Tappu</i> <i>Cornell University</i>	
12:30-1:00	Integral Points on Varieties with Infinite Etale Fundamental Groups  <i>Niven Achenjang</i> <i>MIT</i>	Random Walk on Ramanujan Graphs*  <i>Amin Idelhaj</i> <i>University of Wisconsin</i>	Profinite Rigidity*  <i>Zihao Liu</i> <i>Rice University</i>	The Hot Spots Conjecture with Mixed Boundary Conditions  <i>Lawford Hatcher</i> <i>Indiana University</i>	
1:00-2:30	<b>Lunch</b> SERC Lobby				

\*Expository Talk