

# Knots in Washington 50 Dec 6-8, 2024

Friday Dec 6 Phillips Hall B152

TIME	TALK TITLE	SPEAKER	Remarks
<b>1:00 – 1:10</b>	Opening remarks – 30 years of Knots in Washington (1995-2024)	Jozef H. Przytycki (GWU)	
<b>1:10 – 2:00</b>	<b>Negative band number of knots and links</b>	<b>Keiko Kawamuro (University of Iowa)</b>	<b>Plenary Talk</b>
<b>2:00 – 2:20</b>	<i>Coffee Break (first conference picture)</i>		
<b>2:20 – 2:40</b>	Open problems in skein lasagna modules	Rhea Palak-Bakshi (University of California Santa Barbara)	
<b>2:40 – 2:50</b>	<i>Coffee Break</i>		
<b>2:50 – 3:10</b>	On light bulb smoothing of surfaces in 4-manifolds	Byeorhi Kim (Pohang University of Science and Technology)	
<b>3:10 – 3:20</b>	<i>Coffee Break</i>		
<b>3:20 – 3:40</b>	Braid index and Ropelength of alternating knots	Yuanan Diao (The University of North Carolina at Charlotte)	
<b>3:40 – 3:50</b>	<i>Coffee Break</i>		
<b>3:50 – 4:10</b>	On Goldberg's theorem for braid groups of non-manifolds	Byunghee An (Kyungpook National University)	
<b>4:10 – 4:20</b>	<i>Coffee Break</i>		
<b>4:20 – 4:40</b>	Quandle coloring quivers of general Torus links by dihedral quandles	Brooke Jones (University of South Florida)	
<b>4:40 – 4:50</b>	<i>Coffee Break</i>		
<b>4:50 – 5:10</b>	Branched twist spins and orbifold fundamental groups	Mizuki Fukuda (Tohoku University/MathAM-OIL)	
<b>5:10 – 5:30</b>	<i>Coffee Break</i>		
<b>5:30 – 6:20</b>	<b>On Skein Modules of Rational Homology Spheres</b>	<b>Adam Sikora (University at Buffalo)</b>	<b>Plenary Talk</b>
<b>6:20 – 6:40</b>	<i>Coffee Break</i>		
<b>6:40 – 7:00</b>	On set-theoretic Yang-Baxter homology of finite biquandles	Seung Yeop Yang (Kyungpook National University)	

Saturday Dec 7 Phillips Hall (B152 or B156)

TIME	TALK TITLE	SPEAKER	Remarks
<b>9:30 – 10:00</b>	<i>Breakfast</i>		
<b>10:00 – 10:50</b>	<b>Cohomological meaning of entropy and its diagrammatics</b>	<b>Mikhail Khovanov (Johns Hopkins University)</b>	<b>Plenary Talk</b> B152
<b>10:50 – 11:10</b>	<i>Coffee Break</i>		
<b>11:10 – 11:30</b>	Sah-Arnoux-Fathi invariants and foam cobordisms	Mee Seong Im (Johns Hopkins University)	B152
	The Tanglenomicon: tabulation of two string tangles	Joe Starr (University of Iowa)	B156
<b>11:30 – 11:40</b>	<i>Coffee Break</i>		
<b>11:40 – 12:00</b>	Heegaard Diagrams for 5-manifolds	Geunyoung Kim (McMaster University)	B152
	Domination in Graphs	Kiran Bhutani (Catholic University)	B156
<b>12:00 – 12:10</b>	<i>Coffee Break</i>		
<b>12:10 – 12:30</b>	Folding Branched coverings	Scott Carter (University of South Alabama)	B152
	The Correlation Between Shapes	Lien-Yung Kao (George Washington University)	B156
<b>12:30 – 12:40</b>	<i>Coffee Break</i>		
<b>12:40 – 1:00</b>	The Strongest Genuinely Computable Knot Invariant in 2024	Dror Bar-Natan (University of Toronto)	B152
<b>1:00 – 2:10</b>	<b>LUNCH - Pizza Provided</b>		
<b>2:10 – 3:00</b>	<b>A higher order torsion linking form for 3-manifolds</b>	<b>Slava Krushkal (University of Virginia)</b>	<b>Plenary Talk</b> B152
<b>3:00 – 3:20</b>	<i>Coffee Break</i>		

<b>3:20 - 4:00</b>	<b>Half grid diagrams and Thompson links</b>	<b>Yangxiao Luo (University of Virginia)</b>	<b>Distinguished Graduate Speaker B152</b>
<b>4:00 - 4:20</b>	<i>Coffee Break</i>		
<b>4:20 - 4:40</b>	Quiver presentations for Khovanov arc algebras	Rob Muth (Duquesne University)	B152
	TBA	Fan Zhou (Columbia University)	B156
<b>4:40 - 4:50</b>	<i>Coffee Break</i>		
<b>4:50 - 5:10</b>	A study of clasp pass moves and arrow polynomials of virtual knots	Migiwa Sakurai (Shibaura Institute of Technology)	B152
	Independence Complexes of Bipartite Circle Graphs	Yongwu Rong (Queens College, CUNY)	B156
<b>5:10 - 5:20</b>	<i>Coffee Break</i>		
<b>5:20 - 5:40</b>	Basis for KBSM of $(\beta, 3)$ -fibered torus	Sushmita Sinha Roy (Florida Gulf Coast University)	B152
	Torsion in (Eulerian) Magnitude Homology	Patrick Martin (North Carolina State University)	B156
<b>5:40 - 5:50</b>	<i>Coffee Break</i>		
<b>5:50 - 6:30</b>	<b>Localization spectral sequences for strongly invertible knots</b>	<b>Aakash Parikh (Rutgers University)</b>	<b>Distinguished Graduate Speaker B152</b>
<b>6:30 - 6:40</b>	<i>Coffee Break (second picture)</i>		
<b>6:40 - 7:00</b>	Search for Hochschild Homology of Quandle Algebras.	Mohamed Elhamdadi (University of South Florida)	B152
<b>~7:30 -</b>	<b><i>Small Party at Jozef &amp; Teresa's House (Almost for sure)</i></b>		

## Sunday Dec 8 Phillips Hall

TIME	TALK TITLE	SPEAKER	Remarks
<b>9:30 - 10:00</b>	<i>Breakfast</i>		
<b>10:00 - 10:50</b>	<b>A topological model for the HOMFLYPT polynomial</b>	<b>Christine Lee (Texas State University)</b>	<b>Plenary Talk B152</b>
<b>10:50 - 11:10</b>	<i>Coffee Break</i>		
<b>11:10 - 11:30</b>	Biquandle invariants of immersed surface links and their applications	Puttipong Pongtanapaisan (Arizona State University)	B152
	Lie superalgebra generalizations of the Jaeger-Kauffman-Saleur invariant	Micah Chrisman (The Ohio State University)	B156
<b>11:30 - 11:40</b>	<i>Coffee Break</i>		
<b>11:40 - 12:00</b>	Quandle Cohomology Quiver Representations	Sam Nelson (Claremont McKenna College)	B152
	Fox's $\mathbb{Z}$ -colorings and twelve equivalence relations on $\mathbb{Z}^m$	Kodai Wada (Kobe University)	B156
<b>12:00 - 12:10</b>	<i>Coffee Break</i>		
<b>12:10 - 12:30</b>	Homology for multi-biquandle	Seonmi Choi (Seowon University)	B152
	Mapping class groups of 4-manifolds with 1-handles	Boyu Zhang (University of Maryland)	B156
<b>12:30 - 12:40</b>	<i>Coffee Break</i>		
<b>12:40 - 1:00</b>	A Geometric approach to extreme Khovanov Homology in specific families of links	Hongdae Yun (Kyungpook National University)	B152

	Finiteness phenomena in geometric graph theory	Paul Kainen (Georgetown University)	B156
<b>1:00 - 2:10</b>	<b>LUNCH - Pizza Provided</b>		
<b>2:10 - 3:00</b>	<b>Invariants of 2-bridge knots</b>	<b>Adam Lowrance (Vassar College)</b>	<b>Plenary Talk B152</b>
<b>3:00 - 3:20</b>	<i>Coffee Break</i>		
<b>3:20 - 3:40</b>	Insights from Garside theory into Khovanov homology of 3-braids	Alvaro del Valle Vilchez (Universidad de Sevilla)	B152
<b>3:40 - 3:50</b>	<i>Coffee Break</i>		
<b>3:50 - 4:10</b>	Idempotents and tripotents in quandle rings	Neranga Fernando (College of the Holy Cross)	B152
	Finding Integral Line Graphs Using the Signless Laplacian Matrix	Semin Oh (Kyungpook National University)	B156
<b>4:10 - 4:20</b>	<i>Coffee Break</i>		
<b>4:20 - 4:40</b>	From the Functoriality of Odd Khovanov Homology to 2-Knot Invariants	Jacob Migdail (Washington and Lee University)	B152
	Thompson's groups, tangles, and group actions	Louisa Liles (University of Virginia)	B156
<b>4:40 - 4:50</b>	<i>Coffee Break</i>		
<b>4:50 - 5:10</b>	Investigations in Knot Positivity	Lizzie Buchanan (University of Iowa)	B152
	TBA	Fabian Espinoza (Johns Hopkins University)	B156
<b>5:10 - 5:20</b>	<i>Coffee Break</i>		
<b>5:20 - 5:40</b>	Tait Graphs for Virtual Knots	Ryan Maguire (MIT)	B152
	Spanning trees, Khovanov homology and applications	Swarup Das (TCG Crest)	B156