Quantitative Linear Algebra Reunion Conference II at Lake Arrowhead

Sunday December 12, 2021

1:30 *Bus Departs UCLA/Faculty Center*

4:30 *Check in at Lake Arrowhead*

6:30–8:00 *Dinner*

8:00–9:00 *Joint Session (Iris): Programs Overview by Marco Cavaglia (GWA2021), Pablo Suarez-Serrato (GL2019), Dima Shlyakhtenko (QLA2018), and Frank Jenko (BDC2018),*

9:00–10:00 *Social Hour (Iris)*

Monday December 13, 2021

8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*

9:00–9:40 **Dan-Virgil Voiculescu** (University of California, Berkeley (UC Berkeley))
Miscellaneous about Commutants mod

10:00–10:40 **Ben Hayes** (University of Virginia)
Property (T) and strong 1-boundedness for von Neumann algebras

11:00–11:25 **Theo McKenzie** (University of California, Berkeley (UC Berkeley))
Many nodal domains in random regular graphs

12:00–1:00 *Lunch (on your own)*

1:30–2:10 **Olga Holtz** (University of California, Berkeley (UC Berkeley))
Title: The quantitative (if not always) linear algebra of zonotopes

2:35–3:25 **Srivatsav Kunnawalkam Elayavalli** (Vanderbilt University)
A mystery about groups

3:50–4:15 **Dima Shlyakhtenko** (Institute for Pure and Applied Mathematics)
Estimates on free entropy dimension.

6:30–8:00 *Dinner*

8:00–8:40 *Joint Session (Iris): "How linear algebra proved expansion of graphs and is on the way to rule the world" by Igor Pak (UCLA)*

9:00–10:00 *Social Hour (Iris)*

Tuesday December 14, 2021

8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*

9:00–9:40 **Igor Pak** (University of California, Los Angeles (UCLA))
Log-concave poset inequalities

10:00–10:40 **Shravas Rao** (Northwestern University)
Degree vs. Approximate Degree and Quantum Implications of Huang's Sensitivity Theorem

11:00–11:25 **Benjamin Mirabelli** (Princeton University)
Non-Hermitian and Multivariate Finite Free Probability

12:00–1:00 *Lunch (on your own)*

1:00–6:30 *Afternoon Free*

6:30–8:00 *Dinner*

8:00–8:40 *Joint Session (Iris): "Unweaving the fabric of the universe" by Mairi Sakellariadou (King's College London)*

9:00–10:00 *Social Hour (Iris)*

Wednesday December 15, 2021

8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*

9:00–9:40 **Rolando de Santiago** (Purdue University)
S-malleable deformations and maximal rigid subalgebras.

10:00–10:40 **David Jekel** (University of California, San Diego (UCSD))
Optimal couplings in free probability

11:00–11:25 **Brent Nelson** (Michigan State University)
Quantum Edge Correspondences

12:00–1:00 *Lunch (on your own)*

1:00–6:30 *Afternoon Free*

6:30–8:00 *Dinner*

8:00–8:40 *Joint Session (Iris): "Geometry of Data in Generative and Discriminative Learning" by Guido Montufar (UCLA)*

9:00–10:00 *Social Hour (Iris)*

Thursday December 16, 2021

8:00–9:00	*Check-in/Breakfast (hosted by IPAM)*
9:00–9:40	**Vishesh Jain** (Stanford University) *Singularity of discrete random matrices*
10:00–10:40	**Therese Landry** (University of California, Riverside (UC Riverside)) *Developments in Noncommutative Fractal Geometry*
11:00–11:25	**Nick Boschert** (University of California, Los Angeles (UCLA)) *Free moment measures (joint work with J. Bahr)*
12:00–1:00	*Lunch (on your own)*
1:00–6:30	*Afternoon Free*
6:30–8:00	*Dinner*
8:00–8:40	*Joint Session (Iris): "Facets of Computational" by Hans-Joachim Bungartz (TU Munich)*
9:00–10:00	*Social Hour (Iris)*

Friday December 17, 2021

8:00–9:00	*Check-in/Breakfast (hosted by IPAM)*
9:00–9:40	**Jorge Garza Vargas** (University of California, Berkeley (UC Berkeley)) *Rapid convergence of the shifted QR algorithm on nonnormal matrices*
11:00–12:00	*Checkout*
12:00–1:00	*Lunch (on your own)*
1:00	*Bus Departs Lake Arrowhead (LAX/Marriott/UCLA)*

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