Quantitative Linear Algebra Reunion Conference I

Tuesday December 3, 2019

1:30 *Bus Departs UCLA/Faculty Center*

4:30 *Check in at Lake Arrowhead*

6:30–8:00 *Dinner*

8:00–8:30 *MLP2019 Long Program Graduation Ceremony (Iris)*

8:30–9:30 *Social Hour (Iris)*

Wednesday December 4, 2019

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

9:00–9:40 **Archit Kulkarni** (University of California, Berkeley (UC Berkeley))
The Lanczos Algorithm Under Few Iterations: Concentration and Location of the Ritz Values

9:50–10:10 *Break*

10:10–10:50 **Vishesh Jain** (Massachusetts Institute of Technology)
Quantitative invertibility of random matrices: a combinatorial view

12:00–1:00 *Lunch (on your own)*

1:30–2:10 **Dima Shlyakhtenko** (University of California, Los Angeles (UCLA))
Monotonicity of Entropy and Free Compressions

2:20–2:35 *Break*

2:35–3:15 **Jorge Garza Vargas** (University of California, Berkeley (UC Berkeley))
Spectra of infinite graphs via freeness with amalgamation

6:30–8:00 *Dinner*

8:00–9:00 *Joint Session (Iris): Programs Overview by Cecilia Clementi (Rice University) and Nikhil Srivastava (UC Berkeley)*

9:00–10:00 *Social Hour (Iris)*

Thursday December 5, 2019

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

9:00–9:40 **Dan-Virgil Voiculescu** (University of California, Berkeley (UC Berkeley))
Some non-commutative hydrodynamic Euler equations in free probability

9:50–10:05 *Break*

10:05–10:45 **David Jekel** (University of California, Los Angeles (UCLA))
An L^2-continuous Functional Calculus for Tracial von Neumann Algebras

10:55–11:10 *Break*

11:10–11:40 **Daniel Hoff** (University of California, Los Angeles (UCLA))
Maximal Rigid Subalgebras of s-Malleable Deformations

12:00–1:00 *Lunch (on your own)*

1:00–6:00 *Afternoon Free*

6:30–8:00 *Dinner*

8:00–9:00 *Joint Session (Iris): Talk by Olga Holtz (UC Berkeley)*

9:00–10:00 *Social Hour (Iris)*

Friday December 6, 2019

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

9:00–9:40 **Olga Holtz** (University of California, Berkeley (UC Berkeley))
Total positivity of structured matrices and zero localization of entire functions

9:50–10:05 *Break*

10:05–10:45 **Nikhil Srivastava** (University of California, Berkeley (UC Berkeley))
Gaussian Regularization of the Pseudospectrum and Davies' Conjecture

10:55–11:10 *Break*

11:10–11:30 **Therese Landry** (University of California, Riverside (UC Riverside))
Propinquity, Spectral Triples, and the Sierpinski Gasket

12:00–1:00 *Lunch (on your own)*

1:30–2:10 **Theo McKenzie** (University of California, Berkeley (UC Berkeley))
Connecting Types of Expansion in High Dimensional Simplicial Complexes

2:20–2:35 *Break*

(Friday schedule continued on next page)

(Friday schedule continued from previous page)

2:35–3:15 **Ben Hayes** (University of Virginia)
A multiplicative ergodic theorem for von Neumann algebra valued cocycles

6:30–8:00 *Dinner*

8:00–9:00 *Joint Session (Iris): Talk by Frank Noe (Freie Universität Berlin): Deep learning for physics many-body problems*

9:00–10:00 *Social Hour (Iris)*

Saturday December 7, 2019

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

9:00–9:40 **Tobe Deprez** (KU Leuven)
Ozawa's class $\mathcal S$ for locally compact groups and unique prime factorization of group von Neumann algebras

9:50–10:05 *Break*

10:05–10:45 **Rolando de Santiago** (University of California, Los Angeles (UCLA))
Maximal Rigid Subalgebras and Applications to L^2 Rigidity

10:55–11:10 *Break*

11:10–11:30 **Benjamin Mirabelli** (Princeton University)
Finite Free Non-Hermitian Convolutions and Central Limit Theorems

12:00–1:00 *Lunch (on your own)*

1:30–2:10 **Shravas Rao** (New York University)
An Improved Lower Bound for Sparse Reconstruction from Subsampled Hadamard Matrices

2:20–2:35 *Break*

2:35–3:15 **Roy Araiza** (Purdue University)
Tensor Products of Matrix Convex Sets

6:30–8:00 *Dinner*

8:00–9:00 *Social Hour (Iris)*

Sunday December 8, 2019

8:00–9:00	*Check-in/Breakfast (hosted by IPAM)*
9:00–9:40	**Igor Pak** (University of California, Los Angeles (UCLA)) *Random contingency tables*
10:00–12:00	*Checkout*
12:00–1:00	*Lunch (on your own)*
1:00	*Bus Departs Lake Arrowhead (LAX/Marriott/UCLA)*

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