

Non-commutative Optimal Transport Tutorials

Tuesday March 11, 2025

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00–10:15 **Dario Trevisan** (Università di Pisa)
Quantum Optimal Transport: Quantum Channels and Qubits (Part 1)
- 10:15–10:45 *Break*
- 10:45–12:00 **Augusto Gerolin** (University of Ottawa)
Quantum Optimal Transport: regularization and algorithms (Part 1)
- 12:00–12:30 *Core Orientation with IPAM Staff*
- 12:30–2:00 *Lunch (on your own)*
- 2:00–3:15 **Augusto Gerolin** (University of Ottawa)
Quantum Optimal Transport: regularization and algorithms (Part 2)
- 3:15–3:45 *Break*
- 3:45–5:00 **Tryphon Georgiou** (University of California, Irvine (UCI))
Schrödinger Bridges: Old and New (Part 1)

Wednesday March 12, 2025

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–10:15 **Dario Trevisan** (Università di Pisa)
Quantum Optimal Transport: Quantum Channels and Qubits (Part 2)
- 10:15–10:45 *Break*
- 10:45–12:00 **Oliver Tse** (Eindhoven University of Technology)
Gradient Structures from Classical to Quantum (Part 1)
- 12:00–2:00 *Lunch (on your own)*
- 2:00–3:15 **Kasia Pernal** (Politechnika Lodzka)
Reduced density matrix functional theory (Part 1)
- 3:15–3:45 *Break*
- 3:45–5:00 **Tryphon Georgiou** (University of California, Irvine (UCI))
Schrödinger Bridges: Old and New (Part 2)



Thursday March 13, 2025

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–10:15 **Dario Trevisan** (Università di Pisa)
Quantum Optimal Transport: Quantum Channels and Qubits (Part 3)
- 10:15–10:45 *Break*
- 10:45–12:00 **Oliver Tse** (Eindhoven University of Technology)
Gradient Structures from Classical to Quantum (Part 2)
- 12:00–2:00 *Lunch (on your own)*
- 2:00–3:15 **Kasia Pernal** (Politechnika Lodzka)
Time-dependent reduced density matrix functional theory (Part 2)
- 3:15–3:45 *Break*
- 3:45–5:00 **Dima Shlyakhtenko** (Institute for Pure and Applied Mathematics)
Free Probability and Free Transport (Part 1)

Friday March 14, 2025

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–10:15 **Oliver Tse** (Eindhoven University of Technology)
Gradient Structures from Classical to Quantum (Part 3)
- 10:15–10:45 *Break*
- 10:45–12:00 **Dima Shlyakhtenko** (Institute for Pure and Applied Mathematics)
Free Probability and Free Transport (Part 2)
- 12:00–2:00 *Lunch (on your own)*
- 2:00–3:15 *Research Group Discussion*

