
“Recent Developments in Stochastic Duality”

December 12 - 16, 2022

organized by

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Time measurement: CEST

- **Monday, December 12** *Algebraic approach to duality*

09:00 - 09:40	<i>Arrival and Registration</i>
09:40 - 09:45	<i>Welcome by the organizers</i>
09:45 - 10:30	Rouven Frassek <i>Non-compact spin chains and integrable particle processes</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:45	Wolter Groenevelt <i>A dynamic asymmetric exclusion process with orthogonal dualities</i>
11:45 - 12:30	Chiara Franceschini <i>Two duality relations for Markov processes with an open boundary</i>
12:30 - 15:00	<i>Lunch break</i>
15:00 - 15:45	Tomohiro Sasamoto <i>Current large deviation for the 1D symmetric simple exclusion process</i>
15:45 - 16:30	Jeffrey Kuan <i>Shift invariance of the multi-species q-TAZRP</i>
16:30 - 17:00	<i>Coffee break</i>
17:00 - 17:45	William Mead <i>ASEP Dualities from Integrable Vertex Models</i>

- **Tuesday, December 13** *Duality in complex networks and population dynamics*

09:00 - 09:45	Jochen Blath <i>Dualities in population dynamics and evolution: Recent progress and open problems</i>
09:45 - 10:30	Andreas Greven <i>The role of duality in genealogy-valued stochastic processes</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:45	Maite Wilke Berenguer <i>Duality and coordination</i>

11:45 - 12:30	Anita Winter <i>A Feynman Kac duality for structured CSBP with competition under cell division</i>
12:30 - 15:00	<i>Lunch break</i>
15:00 - 15:45	Adrià Gonzalez Casanova <i>Sampling Duality</i>
15:45 - 16:30	Martin Möhle <i>On some scaling limits for branching processes and regular exchangeable coalescents</i>
16:30 - 17:00	<i>Coffee break</i>
17:00 - 17:45	Federico Capannoli <i>Voter model on directed configuration model</i>

• **Wednesday, December 14** *Duality and Non-equilibrium*

09:00 - 09:45	Federico Sau <i>Duality, non-equilibrium and scaling limits</i>
09:45 - 10:30	Jorge Kurchan <i>Mapping out of equilibrium into equilibrium</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:45	Christian Maes <i>Matrix-forest theorem for driven and active lattice gases</i>
11:45 - 12:30	Gunter Schütz <i>A reverse duality for the ASEP with open boundaries</i>
12:30 - 13:15	Guillaume Barraquand <i>ASEP with boundaries, stationary measures and Markov duality</i>
19:00	<i>Conference Dinner</i>

• **Thursday, December 15** *Duality in the continuum, path-wise duality*

09:00 - 09:45	Sabine Jansen <i>Duality, orthogonal polynomials and intertwining for interacting particles in \mathbb{R}^d</i>
09:45 - 10:30	Stefan Wagner <i>The algebraic approach to duality in non-discrete spaces</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:45	Jan Swart <i>Pathwise duality for monotone Markov processes</i>
11:45 - 12:30	Jan Niklas Latz <i>Monoid duality with a special focus on order-theoretic lattices</i>
12:30 - 15:00	<i>Lunch break</i>

15:00 - 15:45	Jon Warren <i>A family of local times studied as a Markov process</i>
15:45 - 16:30	Ronfeng Sun <i>A new correlation inequality for Ising models with external fields</i>
16:30 - 17:00	<i>Coffee break</i>
17:00 - 17:45	Gioia Carinci <i>Condensation of SIP particles and sticky Brownian motion</i>

• **Friday, December 15** *Duality and (S)PDE*

09:00 - 09:45	Patricia Gonçalves <i>Scaling limits for particle exchange models with several conservation laws.</i>
09:45 - 10:30	Mario Ayala <i>Higher-order fluctuation fields and orthogonal duality polynomials</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:45	Benjamin Fehrman <i>Non-equilibrium large deviations and parabolic-hyperbolic PDE with irregular drift</i>
11:45 - 12:30	Dario Spanò <i>Pólya urns, duality and eigenstructure for reversible Wright-Fisher-type processes</i>
12:30 - 13:30	<i>Lunch break</i>