# Intertwining between Probability, Analysis and Statistical Physics Mini Courses

(05 Aug 2024-08 Aug 2024)

### **Organizing Committee**

Co-chairs

Michael Choi National University of Singapore

> Pierre Patie Cornell University

Laurent Miclo Toulouse School of Economics and CNRS



### Venue

IMS Auditorium Institute for Mathematical Sciences 3 Prince George's Park Singapore 118402

#### For more information:

https://ims.nus.edu.sg/events/intertwining-between-probability-analysis-and-statistical-physics/

## Mini courses

### 05-08 August 2024

Monday, 05 Aug 2024			
Time	Title	Speaker	
0900-0930	Registration		
0930-1030	Distinguished Visitor Lecture Series An Introduction to Intertwining via Strong Stationary Duality Lecture 1: First Examples and Basic Setup	Persi Diaconis Stanford University, USA	
1030-1100	Coffee Break		
1100-1200	Duality of Markov Processes: a Lie Algebraic Approach Lecture 1: Introduction and basic ideas	Cristian Giardina Università degli Studi di Modena e Reggio Emilia, Italy	
1200-1400	Lunch Break		
1400-1500	On Set-Valued Intertwining Duality for Diffusion Processes(Part I)	Laurent Miclo Toulouse School of Economics and CNRS, France	
Tuesday, 06 Aug 2024			
Time	Title	Speaker	
0915-0930	Registration		
0930-1030	Distinguished Visitor Lecture Series An Introduction to Intertwining via Strong Stationary Duality Lecture 2: Duality and Intertwining	Persi Diaconis Stanford University, USA	
1030-1100	Coffee Break		
1100-1200	Duality of Markov Processes: a Lie Algebraic Approach Lecture 2: The su(1,1) Heisenberg spin chain	Cristian Giardina Università degli Studi di Modena e Reggio Emilia, Italy	
1200-1400	Group Photo & Lunch Reception at IMS		
1400-1500	On Set-Valued Intertwining Duality for Diffusion Processes(Part II)	Laurent Miclo <i>Toulouse School of Economics and</i> <i>CNRS, France</i>	

#### Mini courses

Wednesday, 07 Aug 2024			
Time	Title	Speaker	
0915-0930	Registration		
0930-1030	<u>Distinguished Visitor Lecture Series</u> An Introduction to Intertwining via Strong Stationary Duality Lecture 3: Applications of Duality	Persi Diaconis Stanford University, USA	
1030-1100	Coffee Break		
1100-1200	Duality of Markov Processes: a Lie Algebraic Approach Lecture 3: Absorbing duality and propagation of mixtures	Cristian Giardina Università degli Studi di Modena e Reggio Emilia, Italy	
1200-1400	Lunch Break		
1400-1500	On Set-Valued Intertwining Duality for Diffusion Processes(Part III)	Laurent Miclo <i>Toulouse School of Economics and</i> <i>CNRS, France</i>	
1500-1700	Coffee Break		
1700-2000	Group Excursion (for Speakers and by invitations only) 1-way transfer provided Gardens By the Bay Dinner at Hortus		
Thursday, 08 Aug 2024			
Time	Title	Speaker	
0915-0930	Registration		
0930-1030	<u>Distinguished Visitor Lecture Series</u> An Introduction to Intertwining via Strong Stationary Duality Lecture 4: Developments and Open Problems	Persi Diaconis Stanford University, USA	
1030-1100	Coffee Break		
1100-1200	Duality of Markov Processes: a Lie Algebraic Approach Lecture 4: The integrable su(1,1) Heisenberg spin chain	Cristian Giardina Università degli Studi di Modena e Reggio Emilia, Italy	
1200-1400	Lunch Break		
1400-1500	On Set-Valued Intertwining Duality for Diffusion Processes(Part IV)	Laurent Miclo Toulouse School of Economics and CNRS, France	

This schedule is accurate as of 31 Jul 2024 and is subjected to changes.