

Multiscale Analysis and Methods for Quantum and Kinetic Problems

Tutorial Lectures II & Junior researcher session
(13–17 Feb 2023)



ORGANIZING COMMITTEE

Co-Chairs

Weizhu Bao
National University of Singapore

Peter A. Markowich
University of Vienna & King Abdullah
University of Science and Technology

Benoît Perthame
Sorbonne Université

Eitan Tadmor
University of Maryland

Members

Yongyong Cai
Beijing Normal University

Jan Haskovec
King Abdullah University of
Science and Technology

Lin Lin
University of California,
Berkeley

Tommaso Lorenzi
Politecnico di Torino

Jianfeng Lu
Duke University

Sepideh Mirrahimi
CNRS & Université de
Montpellier

Huy Quang Nguyen
University of Maryland

Changhui Tan
University of South Carolina

Minh-Binh Tran
Texas A&M University

Yao Yao
National University of
Singapore

Venue

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

For more information: [Click here](#)

Multiscale Analysis and Methods for Quantum and Kinetic Problems

Tutorial Lectures II & Junior researcher session
(13–17 February 2023)

Monday, 13 February 2023

Time	Title	Speaker
0945–1000	Registration	
1000–1100	<i>Distinguished Visitor Lecture Series</i> Mathematical analysis of models for living tissues and free boundary problems (I)	Benoît Perthame Sorbonne Université, France
1100–1130	<i>Coffee Break</i>	
1130–1230	<i>Distinguished Visitor Lecture Series</i> Mathematical analysis of models for living tissues and free boundary problems (II)	Benoît Perthame Sorbonne Université, France
1230–1400	Lunch Break	
1400–1500	Integration of NLS with low regularity initial data	Alexander Ostermann Universität Innsbruck, Austria
1500–1530	<i>Coffee Break</i>	
1530–1630	Integration of NLS with low regularity initial data	Alexander Ostermann Universität Innsbruck, Austria

Tuesday, 14 February 2023

Time	Title	Speaker
0945–1000	Registration	
1000–1100	<i>Distinguished Visitor Lecture Series</i> Mathematical analysis of models for living tissues and free boundary problems (III)	Benoît Perthame Sorbonne Université, France
1100–1130	<i>Coffee Break</i>	
1130–1230	<i>Distinguished Visitor Lecture Series</i> Mathematical analysis of models for living tissues and free boundary problems (IV)	Benoît Perthame Sorbonne Université, France
1230–1400	Lunch Break	
1400–1500	Integration of NLS with low regularity initial data	Alexander Ostermann Universität Innsbruck, Austria
1500–1530	<i>Coffee Break</i>	
1530–1630	Integration of NLS with low regularity initial data	Alexander Ostermann Universität Innsbruck, Austria

Wednesday, 15 February 2023		
Time	Title	Speaker
0945–1000	Registration	
1000–1100	Error estimates of splitting methods for the nonlinear Schrödinger equation (I)	Chunmei Su Tsinghua University China
1100–1130	<i>Coffee Break</i>	
1130–1230	Error estimates of splitting methods for the nonlinear Schrödinger equation(II)	Chunmei Su Tsinghua University China
1230–1400	Lunch Break	
1400–1500	Error estimates of splitting methods for the nonlinear Schrödinger equation (III)	Chunmei Su Tsinghua University China
1500–1530	<i>Coffee Break</i>	
Junior Researcher Session		
1530–1600	Towards a new mathematical model of the visual cycle	Luca Alasio Sorbonne Université, France
1600–1630	Influence of gauges in TDGL model	Cyril Tain Université de Rouen Normandie, France
1630–1700	Numerical methods for the biharmonic nonlinear Schrödinger equation	Teng Zhang Beijing Computational Science Research Center, China
1700–1730	Two-tube model of miscible displacement: travelling waves and normal hyperbolicity	Yulia Petrova Instituto de Matemática Pura e Aplicada- IMPA, Brazil

Thursday, 16 February 2023		
Time	Title	Speaker
0945–1000	Registration	
1000–1100	Introduction to dipolar quantum gases(I)	Blair Blakie University of Otago, New Zealand
1100–1130	<i>Coffee Break</i>	
1130–1230	Introduction to dipolar quantum gases(II)	Blair Blakie University of Otago, New Zealand
1230–1400	Lunch Break	
1400–1500	Introduction to dipolar quantum gases(III)	Blair Blakie University of Otago, New Zealand
1500–1530	<i>Coffee Break</i>	
1530–1630	Introduction to dipolar quantum gases(IV)	Blair Blakie University of Otago, New Zealand

Friday, 17 February 2023		
Time	Title	Speaker
0945–1000	Registration	
1000–1100	Numerical analysis for dispersive equations: from classical regime to oscillatory regime (I)	Yongyong Cai Beijing Normal University, China
1100–1130	<i>Coffee Break</i>	
1130–1230	Numerical analysis for dispersive equations: from classical regime to oscillatory regime (II)	Yongyong Cai Beijing Normal University, China
1230–1400	Lunch Break	
1400–1500	Numerical analysis for dispersive equations: from classical regime to oscillatory regime (III)	Yongyong Cai Beijing Normal University, China
1500–1530	<i>Coffee Break</i>	
1530–1630	Numerical analysis for dispersive equations: from classical regime to oscillatory regime (IV)	Yongyong Cai Beijing Normal University, China

This schedule is accurate as of 14 Feb 2023.