

African Mathematical School

Mathematical Methods in Analysis and Probability (2MAP)

Daily Programme

WEEK 1

Monday, 16th August, 2021

Registration and Opening Chair: A. Asante	07:30 – 08:30	Breakfast and registration
	08:30 – 08:50	Registration; Opening: Franca Hoffmann , University of Bonn, QLA Rwanda, Olivier Menoukeu Pamen , AIMS Ghana, University of Liverpool; Eric Nkansah , Government of Ghana, Prince Osei , AIMS Ghana, QLA Rwanda
	08:50 – 09:00	Group Photo

Session	Time	Lecturer	Course
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Morning Chair: O. Menoukeu Pamen	09:00 – 10:00	S. Cerrai	Multiscale modelling using SDEs
	10:00 – 11:00	S. Cerrai	Multiscale modelling using SDEs
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	T. Goudon	PDE Models in Mathematical Biology
	12:30 – 14:00	Lunch Break	

Afternoon Chair: F. Hoffmann	14:00 – 15:00	A. Burchard	Symmetrization in functional and applied analysis
	15:00 – 16:00	A. Burchard	Symmetrization in functional and applied analysis
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	L. Tangpi	Propagation of chaos, BSDE and large population games
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	

Tuesday, 17th August, 2021

Morning Chair: G. Degla	08:00 – 09:00	Breakfast	
	09:00 – 10:00	T. Goudon	PDE Models in Mathematical Biology
	10:00 – 11:00	T. Goudon	PDE Models in Mathematical Biology
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	S. Cerrai	Multiscale modelling using SDEs
	12:30 – 14:00	Lunch	

Afternoon Chair: I. Moyano	14:00 – 15:00	L. Tangpi	Propagation of chaos, BSDE and large population games
	15:00 – 16:00	L. Tangpi	Propagation of chaos, BSDE and large population games
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	A. Burchard	Symmetrization in functional and applied analysis
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	
Wednesday, 18th August, 2021			
Morning Chair: M. Fall	08:00 – 09:00	Breakfast	
	09:00 – 10:30	J. A. Carrillo	Gradient Flows, mean-field PDE, and applications
	10:30 – 11:00	Coffee Break	
	11:00 – 12:30	G. Degla	Order structure, Cone theoretic argument, Positivity and Applications
	12:30 – 14:00	Lunch	
	14:00 – 18:30	Free afternoon	
	18:30 – 20:00	Dinner	
Thursday, 19th August, 2021			
Morning Chair: A. Bogso	08:00 – 09:00	Breakfast	
	09:00 – 10:00	T. Goudon	PDE Models in Mathematical Biology
	10:00 – 11:00	T. Goudon	PDE Models in Mathematical Biology
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	S. Cerrai	Multiscale modelling using SDEs
	12:30 – 14:00	Lunch	
Afternoon Chair: S. Cerrai	14:00 – 15:00	L. Tangpi	Propagation of chaos, BSDE and large population games
	15:00 – 16:00	L. Tangpi	Propagation of chaos, BSDE and large population games
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	A. Burchard	Symmetrization in functional and applied analysis
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	



Friday, 20th August, 2021

Morning Chair: F. Hoffmann	08:00 – 09:00	Breakfast	
	09:00 – 10:00	S. Cerrai	Multiscale modelling using SDEs
	10:00 – 11:00	S. Cerrai	Multiscale modelling using SDEs
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	T. Goudon	PDE Models in Mathematical Biology
	12:30 – 14:00	Lunch	
Afternoon Chair: O. Menoukeu Pamen	14:00 – 15:00	A. Burchard	Symmetrization in functional and applied analysis
	15:00 – 16:00	A. Burchard	Symmetrization in functional and applied analysis
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	L. Tangpi	Propagation of chaos, BSDE and large population games
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	

WEEK 2

Monday, 23rd August, 2021

Session	Time	Lecturer	Course
Morning Chair: O. Menoukeu Pamen	08:00 – 09:00	Breakfast	
	09:00 – 10:00	M. Fall	Nonlocal elliptic equations
	10:00 – 11:00	M. Fall	Nonlocal elliptic equations
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	J. Ansong	Modeling internal gravity waves
	12:30 – 14:00	Lunch Break	
Afternoon Chair: G. Degla	14:00 – 15:00	F. Hoffmann	PDE models for interacting particles
	15:00 – 16:00	F. Hoffmann	PDE models for interacting particles
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	G. Mophou	Introduction to optimal control theory
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	

Tuesday, 24th August, 2021

Morning Chair: A. Bogso	08:00 – 09:00	Breakfast	
	09:00 – 10:00	J. Ansong	Modeling internal gravity waves
	10:00 – 11:00	J. Ansong	Modeling internal gravity waves
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	M. Fall	Nonlocal elliptic equations
	12:30 – 14:00	Lunch	
Afternoon Chair: I. Moyano	14:00 – 15:00	G. Mophou	Introduction to optimal control theory
	15:00 – 16:00	G. Mophou	Introduction to optimal control theory
	16:00 – 16:30	Coffee Break	
	16:30 – 17:30	F. Hoffmann	PDE models for interacting particles
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso	Training Session
	18:30 – 20:00	Dinner	

Wednesday, 25 th August, 2021		
Morning Chair: M. Fall	08:00 – 09:00	Breakfast
	09:00 – 10:00	J. Ansong Modeling internal gravity waves
	10:00 – 11:00	J. Ansong Modeling internal gravity waves
	11:00 – 11:30	Coffee Break
	11:30 – 12:30	F. Hoffmann PDE models for interacting particles
	12:30 – 13:30	F. Hoffmann PDE models for interacting particles
	13:30 – 15:00	Lunch
	15:00 – 18:30	Free afternoon
	18:30 – 20:00	Dinner
Thursday, 26 th August, 2021		
Morning Chair: A. Bogso	08:00 – 09:00	Breakfast
	09:00 – 10:00	M. Fall Nonlocal elliptic equations
	10:00 – 11:00	M. Fall Nonlocal elliptic equations
	11:00 – 11:30	Coffee Break
	11:30 – 12:30	J. Ansong Modeling internal gravity waves
	12:30 – 14:00	Lunch
Afternoon Chair: O. Menoukeu Pamen	14:00 – 15:00	G. Mophou Introduction to optimal control theory
	15:00 – 16:00	G. Mophou Introduction to optimal control theory
	16:00 – 16:30	Coffee Break
	16:30 – 17:30	F. Hoffmann PDE models for interacting particles
	17:30 – 18:30	F. Hoffmann, I. Moyano, A. Bogso Training Session
	18:30 – 20:00	Dinner

Friday, 27th August, 2021

Morning Chair: J. Ansong	08:00 – 09:00	Breakfast	
	09:00 – 10:00	A. Bogso	Local time space integral for Brownian sheet and applications
	10:00 – 11:00	A. Bogso	Local time space integral for Brownian sheet and applications
	11:00 – 11:30	Coffee Break	
	11:30 – 12:30	M. Fall	Nonlocal elliptic equations
	12:30 – 14:00	Lunch	
Afternoon Chair: F. Hoffmann	14:00 – 15:00	G. Mophou	Introduction to optimal control theory
Closing Chair: A. Asante	15:00 – 15:30	All Lecturers	Awards of certificates
	15:30 – 16:00	A. Asante, J.A Carrillo, G. Degla, F. Hoffmann, B.B. Kwawu, O. Menoukeu Pamen	Vote of thanks
	16:00 – 16:30	Coffee Break	
	18:30 – 20:00	Dinner	