

UK-Africa Postgraduate Study Institute in Mathematical Sciences: Recordings



18 December 2020

Professor Philip K. Maini, University of Oxford

[Modelling collective cell migration in neural crest](#)

22 – 24 February 2021

Infectious Tropical Disease and COVID-19 Modelling: Towards disease control policies supported by scientific evidence. Mathematics of Public Policy

Julien Arino, University of Manitoba

[Assessing the risk of COVID-19 importation and the effect of quarantine](#)

Jasmina Panovska-Griffiths, University College London

[Modelling COVID-19 transmission and the impact of different interventions on the UK epidemic](#)

William Waites, London School of Hygiene and Tropical Medicine

[Coupling within-host and population dynamics of epidemics with stochastic graph rewriting](#)

Istvan Z. Kiss, University of Sussex

[The timing of one-shot interventions for epidemic control](#)

Jasmina Panovska-Griffiths, University College London

[Statistical analysis to identify risks groups of COVID-19 and to explore whether COVID-19 symptoms vary by age](#)

Zindoga Mukandavire, Coventry University

[Introduction to modelling](#)

Jane White, University of Bath

[Incorporating behavioural change in models for infection dynamics](#)

Farai Nyabadza, University of Johannesburg

[Models vs policies: Challenges and possible expositions](#)

Eduard Campillo-Funollet, University of Sussex

[Parameter estimation of SIR models](#)

Istvan Kiss, University of Sussex

[Exact and approximate epidemic models on networks](#)

Graeme Ackland, University of Edinburgh

[Modelling and Data Challenges in a Pandemic](#)

John H. Njagarah, Botswana International University

[Sensitivity analysis of parameters of an epidemic model](#)

15 - 17 March 2021

Mathematical Modelling of Biological Systems. Numerical analysis and High Performance Scientific Computing

Stephanie Portet, University of Manitoba

[Basic modelling concepts \(Part I\)](#)

[Basic modelling concepts \(Part II\)](#)

Nikolaos Sfakianakis, University of St Andrews

[Bridging the gap between SDEs and PDEs: Hybrid modelling with application in cancer tissue invasion](#)

Prof. Alberto d'Onofrio, University of Glasgow

[Behavioral Epidemiology of Infectious Diseases: its recent past and its future](#)

Julien Arino, [Simulating stochastic systems](#)

Sandile Motsa, [Block hybrid methods for solving systems of non-linear ODEs](#)

Shekar Venkataraman, [Galerkin methods for ODEs](#)

Eduard Campillo-Funollet, [Exhibiting open source numerical software packages](#)

Fred Vermolen, [The theory of ODEs \(existence, uniqueness, phase plane analysis, stability\): Part I & II](#)

Fred Vermolen, [Cellular automaton model with applications to wound healing](#)

12-14 April 2021

Modelling, Analysis, Numerical Methods and Applications of PDEs and SPDEs

Philip K. Maini, [Turing models and the link to patterning in developmental biology](#)

Nikolaos Sfakianakis, [The Mathematics of Crop Science: a brief overview of models and methods](#)

Chandrasekhar Venkataraman, [Numerical methods for surface PDEs: Part I](#)

Prof. Leah Edelstein-Keshet, [Models for cell migration: from complex to simple and back again](#)

Chandrasekhar Venkataraman, [Numerical methods for surface PDEs: Part II](#)

Dumitru Trucu, [Spatio-Temporal-Structural Dynamics in Cancer Invasion](#)

Dumitru Trucu, [Multiscale Moving Boundary Modelling of Cancer Invasion within Fibrous Environments](#)

Sandile Motsa, [Block hybrid methods for solving systems of PDEs](#)

Philip K. Maini, [PDE models in cancer \(travelling waves\)](#)

Fred Vermolen, [Finite element method for PDEs: Part I](#)

Fred Vermolen, [Finite element method for PDEs: Part II](#)

Anotida Madzvamuse, [Introduction to bulk-surface reaction-diffusion systems](#)

Anotida Madzvamuse, [Time-stepping schemes for RDEs](#)

Last updated 28/04/21

24 - 26 May 2021

Crime modelling in Sub-saharan Africa and Financial Mathematics

28 - 29 June 2021

Research Group Presentations