

M.Sc Mathematical Modelling and Scientific Computing

Dissertation Titles 2019-20

- Modelling of Particle Infiltration into Tumour Spheroids
- CholeskyQR+CG: A New Underdetermined Solver
- Distributed Delay in Reaction-Diffusion Systems
- Sketching Methods for Sparse Linear Least Squares Problems
- Computing Metrics to Investigate Sex Differences in Brain Network Dynamics
- Optimisation of Transport Networks
- Approximation by Monopoles
- Topological Data Analysis of Spatio-Temporal Models for Coral Reefs
- Randomized Low-Rank Approximation and Singular Value Estimation
- Full Operator Preconditioning and the Accuracy of Solving Linear Systems
- Image Denoising by the Low Rank plus Sparse Decomposition
- Majority Rule Dynamics on Hypergraphs
- Network Centrality Methods for Early Identification of Important Patents
- Randomised Subspace Methods for Nonlinear Optimisation
- Exact Line Search Using Polynomial Approximations
- Localisation of Turing Patterning in Discrete Heterogeneous Media
- Trivariate Root-finding Based on Hidden-variable Resultant Method and Cayley Resultant Matrix
- Cracks During the Evaporation of a Colloid Suspension
- Solving the Inverse Problem of Discrete Markov Chain
- Numerical Solutions and Parameter Inference for Problems in Electrochemistry