

Session Program

12-17 Jul 2026



**European Conference on Mathematical and Theoretical
Biology (ECMTB 2026)**

Poster Presentations

University of Graz

Tuesday 14 July

18:30

Poster Presentations

Poster Session | Location: University of Graz

How do bee's smell? The multi-physics of honeybee olfaction

Speaker

Dr Ryan Palmer

Differentiated Tuberculosis Care: Supervision-Dependent Thresholds and Bifurcation Structure

Speakers

Palak Goel, Shagun Panghal

ABM-Deep Gaussian Process Virtual Patient Population Reveal Interferon-Dependent Efficacy of Sirolimus in SARS-CoV-2 Infection

Speaker

Henrique de Assis Lopes Ribeiro

Reconstructing High-Resolution Tau Distributions from Regional tau-PET Data Using Implicit Neural Representations

Speaker

Dr Ashish Raj

Quantifying serial killing via multiscale Bayesian comparison of models for sequential NK cell responses

Speaker

Elephes Sung

Calcium Signalling in Glioblastoma Networks of Different Topologies and Possible Treatments

Speaker

Alexandra Shyntar

Autonomous and Nonautonomous Dynamics of an SIRS Model: An Application to Seasonal Influenza in the Congo

Speaker

Arun Kumar

DNA Strand Displacement Sequential Release Circuit for Scheduled Therapeutic Interventions

Speaker

Alivia Behnke

Modelling the Range Change Dynamics of Host-Macroparasite Systems under Climate Change using Reaction-Diffusion Equations

Speaker

Haley Morris

Sensitivity analysis for biological differential equation models with many parameters

Speaker

Dilan Pathirana

The role of phenotypic plasticity in evolution of coexistence.

<p>Speaker Vishnu Venugopal</p>
<p>Large-Scale Mechanistic Modeling for Patient-Specific Drug Recommendation and Organoid Testing in Colorectal Cancer</p> <p>Speaker Moritz Richter</p>
<p>Decoding Nonequilibrium Dynamics in Biological Systems with Horizontal Visibility Graphs</p> <p>Speaker Lucía Benito Barca</p>
<p>T-cell Motility in Confined Geometry: a Statistical Analysis and Model Comparison</p> <p>Speaker Lorenzo Huang</p>
<p>Global Stability and Existence of Traveling Wave Solutions of the One-Predator-Two-Prey Models</p> <p>Speaker Mr Yung-Chih Yang</p>
<p>Same Calories, Different Outcomes: the Dynamics of Fasting in Cancer</p> <p>Speaker Andrés Méndiz Fernández</p>
<p>Development of a computational microscopy pipeline for the inference of the subcellular and population-scale mechanome of red blood cells</p> <p>Speaker Jorge Barcenilla González</p>
<p>Modeling EBV-Driven B Cell Fate Trajectories</p> <p>Speaker Grace McLaughlin</p>
<p>Dynamical System Model Discovery from Sparse Data with GFlowNets and PINNs</p> <p>Speaker Saranya Varakunan</p>
<p>MICAL2 expression promotes invasion and metastasis by cell autonomous and non-cell autonomous mechanisms in Pancreatic Cells</p> <p>Speaker Katherine Simms</p>
<p>Learning Optimal Adaptive Therapies in Space and Time: Dynamic Threshold Therapy for Prostate Cancer</p> <p>Speaker Yunli Qi</p>
<p>Mathematical Models for the Mechanics of Soft Tissues: From Linear Elasticity to Morpho-Visco-Poroelasticity</p> <p>Speaker Sabia Asghar</p>
<p>Advance Prediction of Immunotherapy Outcomes Using Deep Learning</p> <p>Speaker Juliette Sinnott</p>

Parameter estimation in infectious disease models from infected case data using metaheuristic-tuned PINN

Speaker

Arriane Crystal Velasco

Extracting Hidden Cellular Dynamics: A Bayesian Approach to Estimating Time-varying Growth Rates from Noisy Microscopy Data

Speaker

Mr Vishvas Ranjan

Minimal Mechanistic ODE Model for Hormetic Dose-Response Dynamics

Speaker

Aini Fitriyah

A Water Transfer Experiment Linking Physical Systems and Mathematical Models

Speaker

Brynja Kohler

Spatially informed biologically interpretable machine learning approaches for analyzing EEG data

Speaker

Madelyn Esther Cruz

Wavelet-Based Machine Learning Prediction of Norovirus Detection Rates in South Korea

Speaker

Giphil Cho

Early Detection of Malaria Outbreaks Using Incubation Period Distributions and Machine Learning

Speaker

Ms Jeonghwa Seo

Modeling tumor dynamics under PROTAC therapy: a mathematical model for resistance analysis

Speaker

Cecilia Torboli

A Scalable Network-Based Parameterization of Positive Steady States for Dynamical Analysis of Biochemical Systems

Speaker

Exequiel Jun Villejo

Genotoxic Effects of Bacteria and Drugs: Investigation of Hidden Interactions with a Differential Equation-Based Approach

Speaker

Anna Geretovszky

Considerations on Model Complexity with respect to Parameter Sensitivity and Identifiability: A case study of cell invasion

Speaker

Veronika Hofmann

A Mathematical Framework for Per-Read and Per-Sequence Error Characterization in Single-Molecule Sequencing

Speaker

Mr Pranjal Srivastava

Mean Flow Index (Mxa) and Autoregulation Index (ARI): Divergent Calculations, Convergent Conclusions

<p>Speaker Taylan Ozkaya</p>
<p>Contrastive Self-Supervised Learning for Decoding Physical Parameters in Stochastic Gene Expression Dynamics</p> <p>Speaker Xi (Ian) Yang</p>
<p>Protein cluster formation as a moving boundary problem</p> <p>Speaker Kevin Chen</p>
<p>A combined mathematical and experimental approach to understanding tristetraprolin regulation in inflammation</p> <p>Speaker Teri Parsonage</p>
<p>A mathematical framework for quantifying T cell expansion in acute and chronic regulatory contexts</p> <p>Speaker Joanna Schnorr</p>
<p>Benchmarking temporal causal discovery for fully and partially observed biochemical kinetic models</p> <p>Speaker Holly Chambers</p>
<p>Exploring the Neuroblastoma Microenvironment Using Cellular Automata: Insights into Celyvir Therapy.</p> <p>Speaker José García Otero</p>
<p>Systems-level Analysis of CAF Signaling Networks Identifies MASTL-driven Angiogenic Regulation</p> <p>Speaker Jae-Young Kim</p>
<p>An agent-based model to investigate the dynamics of HIF, TGF-α, and EGFR signalling under hypoxic conditions in cancer spheroids</p> <p>Speaker Vaishnudebi Dutta</p>
<p>Mathematical Modelling of Antibiotic Diffusion in Bacterial Biofilms</p> <p>Speaker Florence WILLIAMS</p>
<p>Multiscale Simulation of Ovarian Follicle Dynamics: Linking PDE and ODE Descriptions</p> <p>Speaker Edilbert Christhuraj</p>
<p>Sex-Specific Temporal Dynamics of Human Sleepiness</p> <p>Speaker Hyunji Jeong</p>
<p>Analysis of the Role of Network-Plasticity-Related Proteins in Molecular Networks</p> <p>Speaker Dr Mark Kerestely</p>
<p>Threshold Dynamics in a Time-Delayed Logistic Model of Cell Populations</p>

<p>Speaker Villó Glavosits</p>
<p>The Nuclear Mechanome: A Stochastic Dynamical Characterization of Leukemic Cell Nuclei</p> <p>Speaker Carlos del Pozo Rojas</p>
<p>Fluctuations of plasmid copy numbers in a population</p> <p>Speaker Valentine Brulard</p>
<p>Improving Parameter Identifiability of Stochastic Reaction Network Systems Using Approximate Bayesian Computation</p> <p>Speaker Mr Matthew Brown</p>
<p>Molecular dynamics simulations of epilepsy- associated SCN1A variants for guiding pharmacological treatments</p> <p>Speaker Mistre Bekele</p>
<p>A non-autonomous continuous mathematical model for the Alzheimer biomarker cascade</p> <p>Speaker Antonio Baeza</p>
<p>Pan-genome scale metabolic modeling reveals medium dependent metabolic diversity in Sulfolobus</p> <p>Speaker Maria Jose Rimon Martinez</p>
<p>A parallel asymmetric particle Gaussian mixture filter for state-space estimation of highly nonlinear oscillators</p> <p>Speaker San Kim</p>
<p>Modeling Adult Neural Stem Cells in Zebrafish With Feedback</p> <p>Speaker Theo Andre</p>
<p>Protein-Ligand Affinity Prediction via Topologically-Aware Graph Neural Network</p> <p>Speaker Perry Beamer</p>
<p>Inferring the Interaction Between Circadian Rhythms and Heart Rate Dynamics from Wearable Data</p> <p>Speaker Kangmin Lee</p>
<p>Modeling the Transient Nature of Immunosenescence in Influenza Infection</p> <p>Speaker Havilah Neujahr</p>
<p>Investigating the roles of prior chemotherapy and risk type in bi-specific T-cell engager therapy against B-ALL via mathematical modeling and Bayesian inference</p> <p>Speaker Yifan Chen</p>

A mathematical framework to accurately reconstruct cell lineage from single cell transcriptomics on barcoded cells: application for therapeutics optimization

Speaker
Bence Hajdu

Quantifying Relative Contributions of Driving Factors of ILI Incidence Dynamics across Europe

Speaker
Pauline Bakker

Assessing the Safety of Pulsed Field Ablation in the presence of Implantable Medical Devices

Speaker
Bakhtawar bibi

A Mathematical Approach for Enhancing Tumor Drug Delivery via Collagen Normalization

Speaker
Onur Kerem Özmen

Multi-scale modeling of embryonic organoids

Speaker
Marielle Péré

What Survival Reveals and Misses: Dose-response inference in a preclinical immuno-oncology study

Speaker
Ms Teresa Ackerl

Applying applied maths: mathematical biology in health economics

Speaker
Joe Hilton

Bacterial Attachment to Medical Implants: How can Mathematics Help us Understand and Prevent Biofilm Formation?

Speaker
Otilia Casuneanu

Three-delay model for glucose--insulin--glucagon regulation

Speaker
Michelle Ann Abhijit

Machine Learning for Gene Calling: Neural Network Integration for BBTools' CallGenes

Speaker
Brandon Imstepf

Emergent patterns in systems coupling diffusive and non-diffusive components

Speaker
Finn Münnich

PK-PD Model-Based Control Design for Anesthesia

Speaker
Hannah Zweigart

Extending the Next Generation Matrix method outside of Mathematical Epidemiology

Speaker
Andrei-Dan Halanay

An investigation of The Role of Light in Sleep-Wake Dynamics based on Mathematical Model of Sleep pressure and Circadian Rhythm

Speaker
Seunghun Lee

Quantifying the Effects of Observational Uncertainty on Dynamic Contact Networks Using Topological and Network-Based Analysis

Speaker
Miriam Van de Water

Reconstruction of neuromorphic dynamics from a single scalar time series using variational autoencoder and neural network map for cell culture data

Speaker
Dr Nataliya Stankevich

From adaptation to collapse: a model of thermoregulation under prolonged cold stress

Speaker
Pavel Morcinek

User-friendly Modeling and Simulation of Multiscale Biological Processes using Morpheus

Speaker
Lutz Brusch

Numerical Eigenvalue Analysis of an ODE Model Representing the Endocrine System

Speakers
Clara Horvath, Marie-Sophie Kohlmayer

Identifying Key Patient-Specific Parameters of the Schnider PK-PD Model using Population Kinetics

Speaker
Christina Huber

Self-Organizing Neural Tissue Simulation Platform for Inferring and Validating Developmental Mechanisms

Speaker
Jaekyoung Lee

Perturbing MECOM self-activation reveals multistable hematopoietic cell fate landscapes with cusp and elliptic umbilic-like catastrophes

Speaker
Jonathan Martinez

Retrospective analysis of age-specific non-pharmaceutical interventions on wild-type SARS-CoV-2 in Canada

Speaker
Tanya Philippsen

Evolution of the cell transcriptome during differentiation

Speaker
Julien Blohm

Linking Social Signals from Large Language Models to Epidemic Transmission Dynamics through Physics-Informed Neural Networks

Speaker
Dasom Lee

A Dynamical Model of Pandemic Dynamics with Healthcare Capacity Constraints

Speaker
Carmen Martí Raga

Structural Gradients in Excess Mortality During and After the COVID-19 Pandemic: Economic Development, Preparedness, and Cross-National Differences, 2020–2024

Speaker
Daeil Jang

Inferring Incubation-Related Temporal Structure in Korean Malaria Incidence Using Attention-Based Time-Series Models

Speaker
Seongyu Yu

Development of a Generalized Real-Time Early Detection Model based on Bootstrap Clustering

Speaker
Yeonsu Lee

Doubly Structured Models of Tumour-Immune Cell Reactions

Speaker
Fenora David

Inferring Intercellular Interaction Rules for HER2+ Breast Cancer Cell Motility Using Equation Learning

Speaker
Allison Introne

Physics-Informed Neural Networks for Solving and Calibrating the Fisher-KPP Equation in Spatiotemporal Pathogen Dynamics

Speaker
Jayrah Bena Riñon

One item per disorder: a cross-disorder optimization framework for simultaneous prediction of six psychiatric conditions

Speaker
Ms Myna Lim

Physics-Informed Neural Networks for Inferring Tumor Glucose–Lactate Metabolic Dynamics

Speaker
Shadi Vandvajdi

Mathematical model of adipose cell size and number

Speaker
Aloïs Dauger

Characterizing and Modeling Age and Drug Related EEG Waveform Asymmetry during Anesthesia

Speaker
Marie Steil

Linking tumour microenvironment dynamics to PET radiomic signatures: a computational modelling framework

Speaker
Sahar Jafari Nivlouei

Comparing systems of ODEs to structured models for modeling heterogeneity of neural stem cells

Speaker
Carolin Lindow

Impact of Influenza Antiviral Treatment on the Risk of Household Transmission and the Serial Interval

Speaker
Jihyeon Kim

20:30

Thursday 16 July

18:30

Poster Presentations

Poster Session | Location: University of Graz

Evaluating and developing models for survival extrapolation

Speaker

Maiya Tebäck

Hopf Bifurcations Unravel Complex Antibody Dynamics in COVID-19 Patients

Speaker

Prof. Alexis Erich Almocera

Developing a digital twin of 3D vascular systems to study haemorrhagic viral diseases

Speaker

Jiale Miao

FEM Simulation of STING Pathway Activation for Glioblastoma Immunotherapy

Speaker

Minjong Kim

A forecasting pipeline for triple-negative breast response to neoadjuvant chemotherapy: combining MRI and PK/PD-informed modeling with a mechanical constraint on proliferation.

Speaker

Thomas Gallagher Romero

Integrating spatial statistics and agent-based modelling to study tertiary lymphoid structures in cancer

Speaker

Mr Nicholas Lai

Optimizing Dengue Vaccination Strategies in Brazil: The Role of Regional Immune Profiles and Age-Targeted Allocation

Speaker

Youngsuk Ko

Closed-Loop Control of Anesthesia with Propofol Using Reinforcement Learning on Clinical Data

Speaker

Madlen Martinek

Topological Data Analysis for Unsupervised Feature Selection in Large Scale Spatial Omics Data Sets

Speaker

Mr James Boyle

Clonal dynamics deviate from neutral drift in zebrafish spermatogenesis

Speaker

Connor Shrader

Reaction-diffusion modelling of siderophore-mediated iron uptake and cross-feeding in bacteria communities.

Speaker

Tosin Samuel Osikoya

The role of individual capillaries for the brain's oxygen supply and the consequences of their occlusion

Speaker
Gaia Stievano

Reconstruction of Nosocomial Infectious Disease Outbreaks Using Bayesian Inference

Speaker
Oskar Holmstedt

Deconstructing Pathogen Transmission: Cumulative Edge Flux in Empirical Temporal Networks

Speaker
Nathan Millen

Bifurcation analysis of a distributed-delay Wilson–Cowan model for sleep spindle dynamics

Speaker
Anca Stanoev

Integrative Modelling of Innate Immune Response Dynamics during Virus Infection

Speaker
Ramya Boddepalli

Codifying the rules of microbial community physiology for biotechnology designs: fighting natural biochemistry with its own sword

Speaker
Pranas Grigaitis

ON A MODIFIED LESLIE-GOWER MODEL WITH PREY DEFENSE AND PREDATOR CANNIBALISM

Speaker
Gloria Botchway

Modeling Neurovascular Coupling

Speaker
Léa Benyakar

Non-Periodic Steady State in a Closed Ferroin-Catalyzed Belousov–Zhabotinsky Reaction induced by High Stirring Rates

Speaker
Mihnea Hristea

Social information under restricted observations

Speaker
Andrew Bate

Multiscale Analysis of Gut Dysbiosis Identifies Time-Adaptive Immune Augmentation as an Inflammatory Flare Suppression Strategy

Speakers
Haya Mayoof, Dr Dimitris Manias, Haralampos Hatzikirou

Graph-Based Nonequilibrium Analysis of RNA Polymerase Transcription from Optical Tweezers Time Series

Speaker
Diego Herraes Aguilar

Optimizing enzyme inhibition analysis: precise estimation with a single inhibition concentration

<p>Speaker Hyeong Jun Jang</p>
<p>Learning Population Dynamical Models in Systems Biology with Mixed-Effect Gaussian Process ODEs</p> <p>Speaker Julien Martinelli</p>
<p>From Flickering to Dynamical States: A Data-Driven Analysis of Nonequilibrium Dynamics in Red Blood Cells</p> <p>Speaker Irene Alférez Gómez</p>
<p>Real-time detection of aberrant physiological changes from wearable data using Kalman Filtering and Autoencoder</p> <p>Speaker Yejoon Wang</p>
<p>Percolation theory and Voronoi geometry for modeling protein-ligand interactions</p> <p>Speaker Dr Miranda Lynch</p>
<p>Mathematical Modeling of ECM-Targeted Therapy to Enhance Drug Delivery in Solid Tumors</p> <p>Speaker Elif Basak Sisman</p>
<p>Mechanistic Integration of Longitudinal RNASeq Data to Reveal Novel Biomarkers in Parkinson's Disease</p> <p>Speaker Cyrille Lorenz-Dittmar</p>
<p>Physics-Informed Neural Networks for Mathematical Models on Alzheimer's Disease Dynamics</p> <p>Speaker Samira Breitling</p>
<p>Characterisation of the function of tumor vascular networks</p> <p>Speaker Matilde Palmeira</p>
<p>Risk-aware mechanistic framework for early detection of post-radiotherapy biochemical relapse in prostate cancer</p> <p>Speaker Miguel Anxo Vicente Pardal</p>
<p>Dynamical paths to depolarization block and back</p> <p>Speaker Marisa Saggio</p>
<p>Dynamics and stability of microbial communities under community-level selection</p> <p>Speaker Sofia Almirante</p>
<p>Mathematical modeling of drug delivery by intra-vaginal rings, with application to trans-species ring designs</p> <p>Speaker Bhavana Morankar</p>

Optimizing cell-cycle-targeted drug combinations for high-grade serous ovarian cancer: An integrated approach

Speaker
Agata Xella

Bridging Reaction-Diffusion Models and Empirical Data: Reparameterization for Transporter Kinetics

Speaker
Se Jun Ahn

Benchmarking of the robustness of mechanistic generative models in cellular trajectory and gene regulatory network joint inference

Speaker
Yann Maugé

Explaining differential influenza viral kinetics on treatment with Oseltamivir versus Baloxavir

Speaker
Angela Tower

Cellular- and Subcellular-Scale Modeling of Cardiac Excitation Propagation with Dynamic Extracellular Cleft Concentrations

Speaker
Nicholas Cantrell

Ladderpath: A Compression-Based Hierarchical Framework for Biological Sequence Analysis

Speaker
Yu Liu

Antigenic drift and therapy resistance in CAR T-cell treatment: insights from a cellular automata model

Speaker
Pablo Sanz Galarreta

Fluctuating Trait-Switching Opportunities Generate Bistable Cultural Dynamics in the Absence of Conformist Bias

Speaker
Rinto Yoshizaki

Asymptotic problems for the Keller-Segel system with density cut-off

Speaker
Dr Mingyue Zhang

Mathematical Modelling of the Tumour Microenvironment and $\gamma\delta$ T cells in Ovarian Carcinoma

Speaker
Cedrik Neber

Adaptive Finite Element method for reconstructing dielectric properties of malign melanoma in 3D

Speaker
Georg Kyhn

Mathematical model of excitation and contraction in cardiomyocytes for simulation of in vitro systems for Heart Failure drug development

Speaker
Jacob Bendtsen

SymScore: Machine Learning Accuracy Meets Transparency in a Symbolic Regression-Based Clinical Score Generator

Speaker
Olive Cawiding

Reaction Kinetics of Ryanodine Receptors in a Closed-Open-Inactivated Model

Speaker
Ms Anna Hlubinová

Turing Instability in a Reaction-Diffusion Predator-Prey Model with Prey Infection and Intraspecific Predator Competition

Speaker
Mark Lois Fortin

A Score-Based Bayesian Data Assimilation for High-Dimensional Jansen-Rit Models Using EEG Measurements

Speaker
Eunbi Yoon

Challenging the standard protocol: Mechanistic mathematical model for ^{177}Lu -PSMA therapy optimization

Speaker
Silvia Bordel-Vozmediano

Mathematical and Mouse Models Identify T Regulatory Cell Influx as A Key Determinant of Acquired Resistance to PD-1 Immunotherapy

Speaker
Rachel Sousa

Global Dynamics of Two-prey-one-predator Models with Direct Competition between the Prey: The Biological parts

Speaker
MING CHIEH HUANG

Multi-Scale Mathematical Modelling of Prostate Cancer Response to Iron-Supplemented Ferroptosis

Speaker
Ms Eisha Arif

Beyond Markovian Assumptions: A History-Dependent Framework for Epidemic Inference

Speaker
Dr Sunhwa Choi

Quantifying the Impact of Healthcare Accessibility on Non-COVID Excess Mortality During the COVID-19 Pandemic in South Korea

Speaker
Soyoung Kim

Structural inference over reaction network spaces

Speaker
Elijah Foo

Global Dynamics of Two-prey-one-predator Models with Direct Competition between the Prey : The Mathematical Parts

Speaker
Tinghui Yang

Decoding Cis-Regulatory Information Underlying Gene Expression in Forest Trees Using Field Transcriptomes from Natural Environments

Speaker
Shuichi Kudo

Metabolic Bacterial Game

Speaker
Oleksandr Cherednichenko

Increasing group size can cause catastrophic collapse of cooperation

Speaker
Rokeya Rahman

AI-based multiomics profiling reveals complementary omics contributions to personalized prediction of cardiovascular disease

Speaker
Qingpeng Zhang

Epidemiological model under vaccination regime and non-permanent immunity driven by time-changed Lévy noise

Speaker
Nenad Šuvak

Catalyst: Fast and flexible modeling of reaction networks

Speaker
Torkel Loman

A double-dose vaccination model for COVID-19: Insights from three types of global sensitivity analyses

Speaker
Indunil Hewage

Optimal control approach to obesity reduction

Speaker
Olga Vasilieva

Message-passing graph neural network models to predict protein-protein interactions

Speaker
Mr Dan Mark Orapa

Mathematical Modelling of Plant Cell Polarity Induced by SOSEKI Proteins

Speaker
Annika Brockhaus

Stationary and oscillatory corrosion patterns in extended Barkley models

Speaker
Dr Guglielmo Inferrera

Quantifying the influence of inflammation on spiral artery dynamics through the expansion of a mechanistic endometrial model

Speaker
Alexandria Johnson

Stochastic within-phagocyte model of Coxiella burnetii proliferation with consideration of variant switching

<p>Speaker Anna Hayward</p>
<p>Mantis: A Foundation Model for Mechanistic Disease Forecasting</p> <p>Speaker Carson Dudley</p>
<p>Understanding Treatment Adherence in Tuberculosis Through a Dynamic Game-Theoretic and Compartmental Model</p> <p>Speakers Amit Rohilla, Palak Goel</p>
<p>The Curse of Black Sigatoka: A Backward Bifurcation Perspective</p> <p>Speaker Mr Bernard Asamoah Afful</p>
<p>Quantifying Variant-Specific Transmissibility and Forecasting Summer COVID-19 Outbreaks in Korea</p> <p>Speaker Yoonah Kang</p>
<p>An initial stress-based Arruda-Boyce model for soft-solids and its FE implementation to study surface instabilities</p> <p>Speaker Srikanth Krishnakumar</p>
<p>A Time-Dependent Analysis of Protein Homeostasis Stability</p> <p>Speaker Kaylie Green</p>
<p>Fluctuation analysis of neural stem cell dynamics</p> <p>Speaker Filip Klawe</p>
<p>Thermodynamically Consistent Mechanochemical Modelling of Actin Dynamics</p> <p>Speaker Mr Volkan Ozcoban</p>
<p>A virtual clinical trial analysis of Rocuronium dynamics during surgery in normal-weight and obese patients</p> <p>Speaker Dana Kleimeier</p>
<p>Parameter Optimization of a Thalamocortical Network Model for Simulation of EEG under Propofol</p> <p>Speaker Olga Lazic</p>
<p>Modelling scenarios to mitigate the potential spread of smallpox in Great Britain</p> <p>Speaker Luke Webb</p>
<p>Reconstructing Influenza Incidence from Sentinel Surveillance Data Using a Latent INGARCH Model</p> <p>Speaker Changdae Son</p>
<p>Quantifying End-of-Outbreak Probability of Ebola via Stochastic Models</p>

<p>Speaker Sumin Park</p>
<p>Inverse modelling of mechanochemically coupled tumour growth under paclitaxel treatment and hypoxic stress</p> <p>Speaker Mrs Maryam Alka</p>
<p>Estimating the Distribution of Methylation Entropy in Genomic Data</p> <p>Speaker Monika Kurpas</p>
<p>Cooperative motility emerges in crowds of T cells but not neutrophils</p> <p>Speaker Inge Wortel</p>
<p>Short-time approximation of the transition density for diffusion with reflecting barriers. Application to the Wright-Fisher model with selection and mutation.</p> <p>Speaker Andrés Sosa</p>
<p>Modelling Disease Progression through Manifold Approximation</p> <p>Speaker Christine Zeh</p>
<p>Spatial and Stochastic Microtubule Dynamics Model in the Neuronal Dendrite</p> <p>Speaker Meghan Kwon</p>
<p>Modelling pattern formation in a spatially discrete plant cell signalling system</p> <p>Speaker Patience Aba Sakyi</p>
<p>Accurate noise models and their impact on parameter inference for mathematical models of collective cell behaviours</p> <p>Speaker Marjorie Watts</p>
<p>Analytical Modeling of Circadian Clock Influence on Nuclear Receptor Dynamics</p> <p>Speaker Bechara SAADE</p>
<p>Real time modeling of the 2025 foot-and-mouth disease outbreak in the Hungary-Slovakia border region</p> <p>Speaker Olivér Régaisz</p>
<p>Analysis of the Association Between COVID-19 Prevalence and Wastewater Viral Concentrations Using Survival Dynamical System</p> <p>Speaker Sookyung An</p>
<p>An individual-based model of Glioblastoma cell migration and PDGF-Driven recruitment</p> <p>Speaker Ms Gerda Suchodolskaite</p>

20:30

Modelling biochemically coupled viscoelastic systems: an open-source computational framework

Speaker

Dr Gordon McNicol