ICDEA2019 UCL London Programme

RBG02 - Roberts Building Foyer G02
RBG06 - Roberts Building G06 Sir Ambrose Fleming LT
RBXXX – Roberts Building Room XXX.

Monday 24 June

09:00-10:30	Registration[1]	RBG02			
10:30-11:00	Opening address	RBG06			
11:00-12:00	Plenary talk	RBG06. **Horst Thieme:** *Discrete-time population dynamics on measures*			
12:00-14:00	Lunch	RBG02			
	Tutorial/ Contributed Talks	RBG06	RB421	RB508	RB309
14:00-14:30		**Tutorial lecture** Saber Elaydi *Discrete Dynamical Systems: Stability and Bifurcation*	**Demerci** *A mathematical model for HBV infection*	**Brzeziński** *On Accuracy Improvement of Spectral Jacobi-Chebyshev Collocation Points Method using Custom Collocation Points Selection and Their Placement for Solving of Fractional Diffusion-Wave Equation*	**Boudellioua** *A matrix pencil equivalent of a general 3-D polynomial matrix*
14:30-15:00			**Kumar** *Difference equations associated with wind speed variations*	**Martseniuk** *Integer solutions of implicit linear difference equations of the second order*	**Migda** *Asymptotic properties of solutions of discrete Volterra equations*
15:00-15:30		**Silva** *Bifurcation scenarios under symbolic template iterations of flat top tent maps*	**Siegmund** *Asynchronous discrete dynamical systems*	**Reynolds** *Admissibility and Limit Formulae for Linear Volterra Summation Equations*	**Raffoul** *Qualitative analysis of solutions of nonlinear and neutral difference equations using new variations of parameters formula*
15:30-16:00		**Xochiale** *Quantifying Movement Variability with Nonlinear Dynamics for Human-Humanoid Interaction*	**Sambo** *High Order Hybrid Methods For the Solution of Ordinary Differential Equations*		

[1] Registration will be open throughout the week in Roberts Building Foyer G02.

16:00-17:00	Plenary talk	RBG06 **Paul Glendinning:** *Robust Chaos*
17:00-17:30	Coffee	RBG02
17:30-18:30	ISDE AGM	RBG06
18:30-20:00	Welcome Reception	Buffet and drinks in RBG02

Tuesday 25 June					
09:00-10:00	Plenary Talk	RBG06. **Adina Luminiţa Sasu:** *Admissibility Criteria for Asymptotic Behaviour of Discrete Dynamical Systems*			
10:00-10:30	Coffee	RBG02			
	Tutorial/ Contributed Talks	RBG06	RB421	RB422	RB309
10:30-11:00		**Tutorial lecture** Rod Halburd *Discrete Integrable systems*	**Kostrov** *Preliminary Report on a Rational Equation with Quadratic Term*	**Kenier Castillo** *On variation of eigenvalues of birth and death matrices and random walk matrices*	**Hamaya** *Stability under the perturbation for functional difference equations*
11:00-11:30			**Schinas** *Stability of the non-hyperbolic zero equilibrium of two close-to-symmetric systems of difference equations with exponential terms*	**Kudlak** *On a Boundedness Character of a Class of First Order Rational Systems of Difference Equations with Non-Constant Bounded Coefficients*	**Pop** *On the Neumann boundary optimal control of a frictional quasistatic contact problem with dry friction*
11:30-12:00		**Zemánek** *On square integrable solutions for symplectic and linear Hamiltonian systems*	**Cincin** *The Stability of a Spring-Mass System with Generalized Piecewise Constant Argument*	**Tedeschini** *Coexisting families of coexisting sinks, with different rotation numbers*	**Braverman** *On oscillations of difference equations with continuous time and variable delays*
12:00-12:30		**Ackleh** *The effect of prey evolution to develop toxicant resistance on Predator-Prey Dynamics*	**Wiseman** *Generalized recurrence, transitivity, and mixing*	**Falcolini** *Renormalization Scheme in a Double Limit*	**Alhalawa** *On spectral characterization of nonuniform hyperbolicity*
12:30-14:00	Lunch	RB02			
14:00-15:00	Plenary Talk	RBG06. **Ewa Schmeidel:** *On some properties of nonlinear systems of difference equations applied in modelling of microeconomic phenomena*			

	Tutorial/ Contributed Talks	RBG06	RB421 (Integrable Systems)	RB422	RB309
15:00-15:30		**Gardini** *Characterization of the Center Bifurcations*	**Papamikos** *From solutions of the set-theoretic Yang-Baxter equations to integrable maps*	**Al-Ghassani** *Maps permutation and its effect on the global attractor of a periodic Beverton-Holt model*	**Michetti** *Dishonest behaviour in public procurement with endogenous monitoring: a 2D-PWS model*
15:30-16:00		**Sushko** *Center bifurcation in the Lozi map*	**Rogalski** *Each member of a QRT-familiy of degree four biquadratic curves may have genus zero*	**Choiński** *SIS discrete criss-cross model of tuberculosis in heterogeneous population*	**Heim** *Difference equations related to Dedekind's η-function*
16:00-16:30	Coffee	RBG02			
16:30-17:00		**Tikjha** *Border collision bifurcations in a piecewise linear system of Difference equations*	**Roberts** *Finding rational integrals for birational maps and difference equations*	**Balreira** *Global Injectivity and Stability of Periodic Maps*	**Martsenyuk** *On Nonstandard Finite Difference Scheme for Marchuk's Model of an Immune System*
17:00-18:00	Aulbach Prize talk	RBG06 TBA			

Wednesday 26 June					
09:00-10:00	Plenary talk	RBG06. **Patricia Wong:** *Discrete Splines and their Applications*			
10:00-10:30	Coffee	RBG02			
	Tutorial/ Contributed Talks	RBG06	RB421	RB422	RB309
10:30-11:00		**Tutorial lecture** Steven Bishop and Thomas Evans *Modelling emergent outcomes from complex systems using discrete agent based models*	**Ozbek** *Jensen's inequality and Applications*	**Chamberland** *Newton's method without inversion*	**Salceanu** *Investigating the effect of migration on the outcomes of competition between zebra and quagga mussels*
11:00-11:30			**Almeida** *Optimality conditions for functionals involving distributed-order fractional derivatives*	**Rieger** *Provably convergent implementations of the subdivision algorithm for the computation of invariant objects*	**Cushing** *Difference equation models for Darwinian evolution*

11:30-12:00		**Białecki** *Solution of the inverse problem for a stochastic cellular automaton model of earthquakes*	**Bacani** *New techniques for solving systems of nonlinear difference equations*	**Stehlík** *Counting and ordering periodic patterns of discrete-space dynamical systems*	**Al-Sharawi** *Persistence and stability in discrete monotonic systems with compact invariants*
12:00-12:30		**Neuhauser** *Difference equations related to Dedekind's η-function*	**Mozyrska** *Stability and numerical solutions to the variable-order nonlinear fractional difference equations with Grunwald-Letnikov operator*	**Rai** *Numerical solution of singularly perturbed delay differential parabolic turning point problems*	**Hou** *Geometric method for global stability of discrete competing species models*
12:30-14:00	Packed Lunch				
14:00	Excursion to Greenwich				

Thursday 27 June					
09:00-10:00	Plenary talk	RBG06. **Mats Gyllenberg:** *Difference equations in population dynamics: Modelling and analysis*			
10:00-10:30	Coffee	RBG02			
	Tutorial/ Contributed Talks	RBG06	RB422	RB508	RB421
10:30-11:00		**Tutorial Lecture** Martin Bohner *Time Scales*	**Oztepe** *Some Properties of a Differential Equation with Piecewise Constant Arguments*	**Matsunaga** *Oscillation and nonoscillation of a nonlinear delay difference equation by phase plane analysis*	**Kulenović** *Characterisation of the basin of a locally asymptotically stable fixed point for competitive and cooperative maps of the plane*
11:00-11:30			**Saito** *On the asymptotic stability of discrete mathematical model in employee recruitment of companies*	**Oko** *Ray Theoretical Approaches to Modeling Seismic Wave Propagation*	**Niu** *The global dynamics of a class of competitive maps*
11:30-12:00		**Georgiev** *Existence results for impulsive parabolic dynamic equations on time scales*	**Cavalli** *A financial market model with imitation*	**Karakoç** *Impulse Effect on a Population Model with Piecewise Constant Argument*	**Elaydi** *The structure of ω-limit sets of asymptotically non-autonomous discrete dynamical systems*

12:00-12:30		**Pereira** *A result about global bifurcation for nonlinear dynamic equations on time scales*	**Pecora** *Endogenous Cycles from Income Diversity, Capital Ownership, and Differential Savings*	**Ye Li** *Two Discrete-time Epidemiology Model with Social Mobility*	**Mostajeran** *Invariant differential positivity*
12:30-14:00	Lunch	RBG02			
14:00-15:00	Plenary talk	RBG06. **Andrey Shilnikov:** *Return maps in neuroscience models: from individual cells to neural circuits*			
	Tutorial/ Contributed Talks	RBG06	RB422 (Nevanlinna)	RB508	RB421
15:30-16:00		**Guzowska** *A dynamically consistent discretization method for Goodwin Model*	**Halburd** *Meromorphic solutions of difference and delay-differential equations*	**Wen-Xin Qin** *Rotation sets for monotone recurrence relations*	**Ryals** *Synchronisation and phase locking of coupled oscillators*
16:00-16:30	Coffee	RBG02			
16:30-17:00		**Kosztołowicz** *Application of difference equations to model normal and anomalous diffusion in a membrane system*	**Latreuch** Zero distribution of some delay-differential polynomials	**Onitsuka** *Hyers-Ulam stability and best constant for second-order linear difference equations with constant coefficients*	**Russell** *Difference equations in population genetics*
17:00-17:30		**Slavik** *Nonnegative heterogeneous stationary states for reaction diffusion equations on graphs*	**Ishizaki** *Value distribution theory and complex difference equations*	**Kapçak** *A Note on Nonhyperbolic Fixed Points of One-dimensional Maps*	**Saburov** *Reaching a consensus via Krause mean processes in multi-agent systems: Quadratic stochastic operators*
17:30-18:00		**Bohner** *Periodicity on Isolated Time Scales*	**Cao** *q-Partial difference equations and some applications*	**Díaz** *Relation between Sensitive system and MDS using Furstenberg family*	**Radi** *Nonlinear dynamics in a robust Cournot model*
18.00-18:30	Free time				
19.00-23:00	Dinner	Royal National Hotel, including presentation by **Saber Elaydi**			

Friday 28 June			
09:00-10:00	Plenary talk	Bentham House LG11 Lecture Room. **Mihály Pituk:** *Asymptotic Behavior of the Solutions of Linear Difference Equations*	
10:00-10:30	Coffee	Bentham House Hub	
10:30-12:00	Contributed talks	Bentham House LG11 Lecture Room	Bentham House LG17 Lecture Room
10:30-11:00		**Olaru** *Model Predictive Control for congestion management*	**Temperi** Transitions in Dynamical Systems with Bounded Uncertainty
11:00-11:30		**Mestel** *Quasiperiodic renormalisation for general rotation number*	**Seymenoglu** *Invariant manifolds of competitive Selection-Recombination dynamics*
11:30-12:00		**Baigent** *Concave Carrying Simplices*	**Guillermo Olicon Mendez** *Hysteresis, flickering and bifurcations in random dynamical systems*
12:00-13:00	Lunch	Bentham House Hub	
13:00	Closing	Bentham House LG11 Lecture Room	