

ICDEA 2023 Program Monday, July 17th 2023

9:00 - 9:30 Convention room Open ceremony		
9:30 - 10:30 Convention room: S. Elaydi (Chair: Gardini) "A Journey into Global Stability: From Monotone to Mixed Monotone and from autonomous to nonautonomous"		
10:30 - 11:00 Coffee Break		
11:00 - 11:30 Convention room: SM-1 D. Radi (Chair: Pecora) "Border collision bifurcations in a piecewise linear duopoly model"	11:00 - 11:30 PangUbol room: BI-1 A.S. Ackleh (Chair: Zheng) "Long-Time Behavior of Discrete-Time Population Models with Dispersal"	11:00 - 11:30 Nillabol room: REN-1 S. Chandragiri (online) (Chair: Lyapin) "A Matlab-based Finite difference method of the Cauchy problem for 3 D-Poisson equation"
11:30 - 12:00 Convention room: SM-2 A. Panchuk (Chair: Pecora) "Bifurcation Structures in a Discontinuous 2D Map, Modeling Exchange Rate Dynamics"	11:30 - 12:00 PangUbol room: BI-2 Q. Sun (Chair: Zheng) "A computational model for analyzing stochasticity in gene transcription"	11:30 - 12:00 Nillabol room: REN-2 S. Tikare (online) (Chair: Lyapin) "Theory of Nonlinear Delay Dynamic Equations with Impulses"
12:00 - 12:30 Convention room: SM-3 I. Sushko (online) (Chair: Pecora) "2D Discontinuous Map: Exploring the Dynamics of a Growth Model with Switch in Behavior"	12:00 - 12:30 PangUbol room: BI-3 Z. A. Sharawi (Chair: Zheng) "Global stability in the periodic twodimensional Ricker model"	12:00 - 12:30 Nillabol room: REN-3 J. Hoseana (Chair: Lyapin) "The dynamical system generated by the greedy algorithm"
12:30 - 13:30 Lunch		
13:30- 14:30 Convention room: D.J.W.Simpson (Chair: Gardini) "Piecewise-linear maps: where do they come from and what do they do?"		
14:30- 15:00 Convention room: PL-1 D.J.W. Simpson (Chair: Banerjee) "Explicit constructions for chaotic attractors of piecewise-linear maps"	14:30- 15:00 PangUbol room: BI-4 P. Mei (Chair: Q.Sun) "Homoclinic solutions for partial difference equations with mixed nonlinearities"	14:30- 15:00 Nillabol room: QU-10 Wenmeng Zhang (online) (Chair: W. Zhang) "Smooth dependence of nonautonomous linearization on parameters"
15:00 - 15:30 Convention room: PL-2 S. Banerjee (Chair: Simpson) "Dynamics of the three-dimensional piecewise smooth normal form map"	15:00 - 15:30 PangUbol room: BI-5 R. Yan (Chair: Q.Sun) "Periodic solutions for a mosquito population suppression model based on incomplete cytoplasmic incompatibility"	15:00 - 15:30 Nillabol room: QU-11 Linfeng Zhou (online) (Chair: W. Zhang) "Tempered exponential dichotomy, Admissibility and Shadowing for Random Dynamical Systems"
15:30 - 16:00 Coffee Break		
16:00 - 16:30 Convention room: PL-3 I. Ghosh (online) (Chair: Simpson) "Understanding the bifurcation structure of robust chaos in piecewise-linear maps using renormalisation1"	16:00 - 16:30 PangUbol room: QU-1 Weinian Zhang (online) (Chair: Sasu) "Smoothness and Resonance in Linearization"	16:00 - 16:30 Nillabol room: REN-4 Z. Lesniak (online) (Chair: Muni) "On Brouwer homeomorphisms generating foliations of the plane"
16:30 - 17:00 Convention room: PL-4 P. Kucharski (online) (Chair: Simpson) "Strange attractors of orientation preserving Lozi maps"	16:30 - 17:00 PangUbol room: QU-2 D. Dragicevic (online) (Chair: Sasu) "Smooth linearization of nonautonomous coupled systems"	16:30 - 17:00 Nillabol room: REN-5 M. K. Moghadam (online) (Chair: Muni) "Existence of a Positive Solution to a Fractional Difference Equation"
17:00 - 17:30 Convention room: REC-1 R. Lozi (Chair: Gardini) "Are chaotic attractors just a mathematical curiosity or do they contribute to the advancement of science?"	17:00 - 17:30 PangUbol room: QU-3 A. L. Sasu (online) (Chair: D. Dragicevic) "Discrete Admissibility and Trichotomy of Discrete Variational Systems"	17:00 - 17:30 Nillabol room: REN-6 S. S. Muni (online) (Chair: Tikjha) "Doubling bifurcation of mode-locked orbits in three-dimensional maps"
17:30 - 21:00 Convention room Welcome Party		

- Plenary talk
- Regular session
- SS. "Dynamics of Smooth and Nonsmooth Maps: Theory and Applications"
- SS. "Discrete dynamical systems: theory, methods, and applications in biology"
- SS. "Dynamics and bifurcations of piecewise-linear maps"
- SS. "Stability Theory for Difference Equations"
- SS. "Qualitative Properties of Discrete Dynamical Systems and Applications"

ICDEA 2023 Program Tuesday, July 18 th 2023		
9:00 - 9:30 Convention room: REC-2 A. Mohapatra (Chair: Sanjuan) “Synchrony and stability in a migrating population model”	9:00 - 9:30 PangUbol room: REP-1	9:00 - 9:30 Nillabol room: REN-7 A. Shukla (Chair: Tariboon) “Approximate controllability of discrete time semilinear Riemann-Liouville-like fractional equations”
9:30 - 10:30 Convention room: B. Zheng (Chair: Sanjuan) “Wolbachia -release Dynamics in Mosquito Populations via Discrete Models”		
10:30 - 11:00 Coffee Break		
11:00 - 11:30 Convention room: ST-1 M. Onitsuka (Chair: Matsunaga) “Stability regions for a diamond-alpha difference equation”	11:00 - 11:30 PangUbol room: BI-6 Y. Kang (Chair: Mei) “Communication dynamics of a discrete-time dyad interaction model with applications to human-automation teaming”	11:00 - 11:30 Nillabol room: REN-8 A. K. Upadhyay (Chair: Tariboon) “Reachability in semilinear difference control systems”
11:30 - 12:00 Convention room: ST-2 P. Niamsup (Chair: Matsunaga) “New Stability Criteria for discrete-time dynamical system with infinite delays”	11:30 - 12:00 PangUbol room: BI-7 Yufeng Wang (Chair: Mei) “Periodic Solutions in a class of periodic switching delay differential equations”	11:30 - 12:00 Nillabol room: REN-9 S. Halder (Chair: Fewster-Young) “Two-dimensional miscible-immiscible supersolid and droplet crystal state in a homonuclear dipolar bosonic mixture”
12:00 - 12:30 Convention room: ST-3 H. Matsunaga (Chair: Matsunaga) “Effect of delays on the asymptotic stability of linear difference equations”	12:00 - 12:30 PangUbol room: BI-8 S. Kryzhevich (online) (Chair: Mei) “Bistability in a one-dimensional model of a two-predators-one-prey population dynamics system”	12:00 - 12:30 Nillabol room: REN-10 N. Adhikary (Chair: Fewster-Young) “On notion of minimality in CR-dynamical system”
12:30 - 13:30 Lunch		
13:30 - 14:30 Convention room: M.A.F. Sanjuan (Chair: M. Misiurewicz) “Partial Control and Beyond: Controlling Chaotic Transients with the Safety Function”		
14:30- 15:00 Convention room: SM-4 Z. Zhusubaliyev (online) (Chair: Panchuk) “On Nested Multi-band Closed Invariant Curves in Nonsmooth Systems”	14:30- 15:00 PangUbol room: BI-9 Chen Yining (Chair: Zheng) “Global dynamics of a mosquito population suppression model with seasonal switching”	14:30- 15:00 Nillabol room: QU-12 S. Olaru (Chair: Sasu) “Relaxed notions of set-invariance for discrete-time systems”
15:00 - 15:30 Convention room: SM-5 V. Avrutin (online) (Chair: Panchuk) “Border collision bifurcations of a chaotic attractors leading to their expansion”	15:00 - 15:30 PangUbol room: REP-2 X. Liu (Chair: Zheng) “Synchronization analysis for discrete fractional-order neural networks with time delays”	15:00 - 15:30 Nillabol room: QU-13 L. Suci (online) (Chair: Sasu) “Brownian type extension for operators on Hilbert spaces”
15:30 - 16:00 Coffee Break		
16:00 - 16:30 Convention room: SM-6 A. Caravaggio (online) (Chair: Radi) “Monopolistic Dynamics with Endogenous Product Differentiation”	16:00 - 16:30 PangUbol room: QU-4 J. Zhong (online) (Chair: Dragicevic) “Qualitative Properties and Two Strong Resonances of a Discrete Reduced Lorenz System”	16:00 - 16:30 Nillabol room: REN-11 R. T. B. Taher (Chair: Fewster-Young) “On the non-homogeneous second order linear difference equation with periodic coefficients”
16:30 - 17:00 Convention room: SM-7 P. Commendatore (online) (Chair: Radi) “The dynamics of firms’ location and households’ residential choices in a NEG model with environmental pollution and a Price index effect”	16:30 - 17:00 PangUbol room: QU-5 J. Zhang (online) (Chair: Dragicevic) “Qualitative structures of a degenerate fixed point of a Ricker competition model”	16:30 - 17:00 Nillabol room: REN-12 N. H. Gazi (Chair: Fewster-Young) “Non-hyperbolic bifurcation analysis and control of a discrete-type epidemiological system under treatment”
17:00 - 17:30 Convention room: SM-8 N. Pecora (Chair: Radi) “A reappraisal of fundamentalists in a cobweb model with heterogeneous agents”	17:00 - 17:30 PangUbol room: QU-6 G. Robledo (online) (Chair: Dragicevic) “Nonuniform exponential dichotomy for upper triangular ODE systems”	17:00 - 17:30 Nillabol room: REN-13 S. Georgiev (Chair: Tikjha) “Impulsive Riemann-Liouville Fractional Dynamic Equations on Time Scales”
17:30 - 18:00 Convention room: SM-9 C. Lois-Prados (online) (Chair: Radi) “Qualitative study of two piecewise-smooth maps arising in threshold harvesting”	17:30 - 18:00 PangUbol room: QU-7 Alvaro Castaneda (online) (Chair: Dragicevic) “Discrete and continuous dynamics of nilpotent polynomial vector fields in \mathbb{R}^3 ”	17:30 - 18:00 Nillabol room: PL-5 I. Bula (online) (Chair: Simpson) “Behavior of Solutions of System of Piecewise Linear Difference Equations with Many Periodic Solutions”
18:00-19:00 Convention room ISDE Meeting		

ICDEA 2023 Program Wednesday, July 19th 2023

9:00 - 9:30 Convention room: REC-3 K. Das (Chair: Elaydi) “Delay Impact of Prey Predator Model with Allee Effect”	9:00 - 9:30 PangUbol room: REP-3 O. Bagdasar (Chair: Simpson) “The Dynamics of Kasner Quadrilaterals with a Sequence of Complex Parameters”	9:00 - 9:30 Nillabol room: REN-14 N. Fewster-Young (Chair: Palmer) “Existence Results for Nonlinear Discrete Nabla Fractional Boundary Value Problems with Nabla Difference Dependency”
9:30 - 10:30 Convention room: L. Gardini (Chair: S. Elaydi) “Border collision bifurcations in a PWL stock market model described by a 2D discontinuous map”		
10:30 - 11:00 Coffee Break		
11:00 - 11:30 Convention room: SM-10 T. Tichy (Chair: Zhou) “Valuation of Mining Projects under Dynamic Model Framework”	11:00 - 11:30 PangUbol room: BI-10 Z. Zhu (Chair: Long) “Stability and periodicity in a mosquito population suppression model composed of two sub-models”	11:00 - 11:30 Nillabol room: REN-15 Eddy Kwessi (Chair: Palmer) “Hierarchical Model for Species with a Hollins-Type II Functional Response a stochastic approach”
11:30 - 12:00 Convention room: SM-11 M. Sodini (online) (Chair: Zhou) “Debt dynamics and fiscal policy in a monetary union”	11:30 - 12:00 PangUbol room: BI-11 A. S. Mousa (Chair: Long) “Dynamics of envy behavioral decisions in a game with two types of homogeneous players”	11:30 - 12:00 Nillabol room: BI-14 W. Guo (Chair: Yan) “Finite-time stability of Wolbachia driven mosquitoes based on stochastic differential equations with time varying delay”
12:00 - 12:30 Convention room: SM-12 W. Zhou (Chair: Zhou) “Complex dynamical behaviors in a Bertrand game with service factor and differentiated products”	12:00 - 12:30 PangUbol room: BI-12 H. Guo (Chair: Long) “Traveling Waves Solutions for Delayed Temporally Discrete Non-Local Reaction-Diffusion Equation”	12:00 - 12:30 Nillabol room: BI-15 Yanshan Chen (Chair: Yan) “Infinite Homoclinic Solutions of the Discrete Partial Mean Curvature Problem with Unbounded Potential”
12:30 - 13:30 Lunch		
13:30 - 18:00 Excursion		

ICDEA 2023 Program Thursday, July 20th 2023

9:00 - 9:30 Convention room: REC-4 A. Nagar (Chair: Sanjuan) “Transitivity in dynamical systems given by closed relations”	9:00 - 9:30 PangUbol room: REP-4 G. Lin (Chair: Kang) “Propagation Dynamics in Rocker Competition Systems with Spatial Diffusion”
9:30 - 10:30 Convention room: M. Misiurewicz (Chair: Sanjuan) “Dynamics of congestion games played by a diverse population”	
10:30 - 11:00 Coffee Break	
11:00 - 11:30 Convention room: ST-4 S. Trolle (online) (Chair: Onitsuka) “Discrete Dynamical Systems of Non-Autonomous Cooperative type and its Application to Evolutionary Dynamics”	11:00 - 11:30 PangUbol room: BI-13 M. Saburov (online) (Chair: Feng) “Stable and historic behavior in the evolutionary dynamics of population games”
11:30 - 12:00 Convention room: ST-5 N. Yamaoka (online) (Chair: Onitsuka) “Asymptotic behavior of solutions of two-region dynamic Dixit-Stiglitz-Krugman model with the discrete-time variable”	
12:00 - 12:30 Convention room: ST-6 R. Kon (online) (Chair: Onitsuka) “Dynamics of a discrete-time competition model of Ricker type with reproductive delay”	
12:30 - 13:30 Lunch	
13:30 - 14:30 Convention room: Galina Filipuk (online) (Chair: Elaydi) “Special functions: from orthogonal polynomials to discrete Painleve equations”	
14:30 - 18:00 Convention room: Preparing room for Conference Dinner	14:30 - 15:00 PangUbol room: REP-5 Alexander Lyapin (Chair: Sanjuan) “D-finite power series in a simplicial cone”
	15:30 - 16:00 Coffee Break
	16:00 - 17:00 PangUbol room: Plenary talk: K. J. Palmer (Chair: Elaydi) “Exponential dichotomies in noninvertible linear difference equations”
	17:00 - 17:30 PangUbol room: QU-8 R. Boruga (online) (Chair: Sasu) “On Datko-Zabczyk type characterizations for uniform dichotomy of linear discrete time systems in Banach spaces”
	17:30 - 18:00 PangUbol room: QU-9 A. Gaina (online) (Chair: Sasu) “On nonuniform dichotomy with growth rates for discrete-time skew-evolution cocycles”
18:00 - 21:00 Convention room: Conference Dinner	

ICDEA 2023 Program Friday, July 21st 2023

9:00 - 9:30 Convention room: SM-13 W. Tikjha (Chair: Radi) “ Further Peculiarities of Unbounded Cycles, Unbounded Chaotic Intervals and Organizing Center in a Rational Map”
9:30 - 10:30 Convention room: T. Downarowicz (Chair: Simpson) “Normality versus determinism - Rauzy's approach”
10:30 - 11:00 Coffee Break
11:30 - 12:30 Convention room: L. Efremova (online) (Chair: Downarowicz) “Skew Products and Geometrically Integrable Maps: Current State, Problems and Prospects”
12:30 - 13:30 Lunch
13:30 - 14:30 Convention room: Closing Cremony