	MONDAY JUNE 13th						
TIME	**ACTIVITY**						
7:30 AM	Breakfast						
	ART lobby						
8:00 AM	Plenary						
	ART 103						
	James Burke						
	Tales from the Optimal Frontier: Optimal value functions, theory and practice						
9:00 AM	Coffee Break						
	ART lobby						
	MS Sessions A						
	ART 102	*ART 104*	*ART 108*	*ART 110*	*ART 112*	*ART 114*	
	MS09: Bifurcations and dynamics in biological systems (part I)	MS10: Conservative & geometric discretizations (part I)	MS14: Models for the atmosphere, climate, and ocean dynamics (part I)	MS30: West Coast Optimization Meeting (part I)	MS28: The role of noise and asymmetry in models of microscopic life	MS24: Simulation-based inference & probabilistic programming	
9:30 AM	Sue Ann Campbell	Yakov Berchenko-Kogan	Rüdiger Brecht	Tamon Stephen	Jay Newby	Torsten Ensslin	
	The Impact of time delays on the onset of oscillations and synchrony in brain networks	*Charge-Conserving Hybrid Finite Element Methods for Maxwell's Equations and the Yang-Mills Equations*	*Deep learning improving Lagrangian trajectory calculations*	*Searching for Hypergraphs Using Reinforcement Learning*	*Modeling and multiple object tracking of motile diatoms*	*Information Field Theory & Probabilistic Programming with Fields*	
9:55 AM	Zhao (Wendy) Wang	Kaibo Hu	Andeas Stohl	Hui Ouyang	Pengyu Liu	Filip Tronarp	
	Mathematical modeling of Operon Dynamics with Threshold State-Dependent Delays	*Finite element diagram chasing*	*Lagrangian atmospheric transport modelling*	*Linear Convergence of Generalized Proximal Point Algorithms for Monotone Inclusion Problems*	*Monte-Carlo Model for Kinetoplast DNA Networks*	*Probabilistic Numerics for Inference in Initial Value Problems*	
10:20 AM	Elena Braverman	Evan Gawlik	Michael Waite	Nick Dexter	Yonatan Ashenafi	Ionut Farcas	
	Optimality and sustainability of impulsive harvesting with delay	*Discretizing connections and curvature with finite elements*	*Anisotropic eddy viscosity in geophysical fluid models*	*Efficient algorithms for computing near-best polynomial approximations to high-dimensional, Hilbert-valued functions from limited samples*	*Angular Motion of Pennate Diatoms as a Function of Asymmetry in Their Frustules*	*Filtering in Non-intrusive Data-driven Reduced Modeling of Large-scale Systems*	
10:45 AM	Jianhong Wu	Ari Stern	Jahrul Alam	Lijun Ding	Daniel Pearce	Zenna Tavares	
	TBA	*Functional Equivariance and Conservation Laws in Numerical Integration*	*Links between enstrophy production and energy cascade in atmospheric turbulence*	*Flat minima generalize for low-rank matrix recovery*	*Controlling active matter with geometry*	*Inverting Non-Invertible Programs and Other Exotic Transformations*	
11:10 AM	Prize Talk						
	CAIMS/SCMAI Research Prize						
	ART 103						
	Frithjof Lutscher						
	Biological Invasions in heterogeneous landscapes						

11:55 AM	Lunch						
	Sun Room						
13:30 PM	Prize Talk						
	ART 103						
	Raymond Spiteri						
	Industrial Mathematics in 12 relatively pain-free lessons						
	MS SESSIONS B						
	ART 102	*ART 104*	*ART 108*	*ART 110*	*ART 112*	*ART 114*	*ART 103*
	MS09: Bifurcations and dynamics in biological systems Part II	MS10: Conservative & geometric discretizations (part II)	MS14: Models for the atmosphere, climate, and ocean dynamics - Part II	MS20: Recent advances in nonlinear optimization	MS07: Asymptotic analysis arising in reaction-diffusion systems – part I	MS31: Ecological Models	MS25: Spatial Modelling of Virus Infection Patterns in Tissue
14:15	Jacques Bélair	Andy Wan	Lucy Campbell	Gonzalo Muñoz	Nabil Fadai	Bruno Carturan	Fred J. Vermolen
	a Model of Transmission Dynamics of COVID-19 in Long-Term Care Facilities	*Discrete Multiplier Method and its applications in many-body problems*	*Vortex Rossby waves and beta gyres in cyclonic vortices*	*On obtaining the convex hull of quadratic inequalities via aggregations*	*Semi-infinite travelling waves arising in a general reaction-diffusion Stefan model*	*A model to inform wildflower planting strategies that support pollinators and increase crop yield*	*Cellular automata modelling for virotherapy against pancreatic cancer*
14:40	Xingfu Zou	Nikolas Wojtalewicz	David Muraki	Marcel Celaya	Chunyi Gai	Jane Shaw MacDonald*	Dominik Wodarz
	A new perspective on infection forces with demonstration by a DDE infectious disease model	*Conservative Integrators for Piecewise Smooth Systems with Transversal Dynamics*	*A Boussinesq Theory for Cloud-Edge Motion*	*Improving the Cook et al. Proximity Bound Given Integral Valued Constraints*	*Resource-mediated competition between two plant species with different rates of water intake*	*A numerical approach to moving-habitat models with periodically varying shifting speeds*	*Dynamics of virus spread in spatially structured populations*
15:05	Guihong Fan	Melvin Leok	Qiu Yang	Luze Xu	David Iron	Lindi Wahl	Michael Getz
	Delayed model for the transmission and control of COVID-19 — the role of Fangcang shelter hospital in Wuhan	*Variational Accelerated Optimization on Riemannian Manifolds*	*Impact of Global Warming on U.S. Summertime Mesoscale Convective Systems: A Simple Lagrangian Parcel Model Perspective*	*Gaining or losing perspective for convex multivariate functions on a simplex*	*Localized outbreaks in an SIR model with diffusion*	*Surviving environmental change: extinction risk can increase with population size.*	*Community-driven development of a SARS-CoV-2 tissue simulator*
15:30	Zahra Mohammadi	Damien Tageddine	Samuel Bolduc-St-Aubin	Joseph Paat	Talmon Soares	Anudeep Surendran	Christian Quirouette
	Insights into the mask-wearing measure during the COVID-19 pandemic	*From Representation Theory to Geometric Discretizations.*	*TBA*	*A Colorful Steinitz Lemma Applied to Block Integer Programs*	*Graphical Methods for Dynamics-Preserving Reductions of Biochemical Systems*	*Combination treatment strategies for glioblastoma with immune checkpoint blockade and chemotherapy: an agent-based model*	*A mathematical model describing the localization and spread of influenza A virus infection within the human respiratory tract*
15:55	Coffee break						
	ART LOBBY						
	MS SESSIONS C						
	ART 102	*ART 104*	*ART 108*	*ART 110*	*ART 112*	*ART 114*	
	MS09: Bifurcations and dynamics in biological systems Part III	MS18: Recent Advances In Mathematical And Computational Finance Part I		MS30: West Coast Optimization Meeting - Part II	MS21: Recent Advances in Numerical Methods for Scientific Computing Part I	MS16: Multi-scale & immunity modelling – part I	
16:25	Ian Chambers	Tony Ware		Zhenan Fan	Justin Wan	Jason Shoemaker	

	Evolution of Diapause in Codling Moth Populations Subject to the Sterile Insect Technique	*Polynomial maps of polynomial processes for energy market modelling*		*Polar deconvolution of mixed signals*	*Fast and Scalable Solvers for the Fluid Pressure Equations with Separating Solid Boundary Conditions*	*Comparative Computational Modeling Identifies Strain-specific Interferon Production Drives Immunopathology During Influenza Infection*	
16:50	Silas Poloni Lyra	Yuchong Zhang		Chris Ryan	Yunhui He	James McCaw	
	Integrodifference models for evolutionary processes in biological invasions	*A Mean Field Game of Sequential Testing*		*Minimum and Maximum Spanning Trees in Infinite Graphs*	*Smoothing Analysis of Two Robust Multigrid Methods for Elliptic Optimal Control Problems*	*Incorporating waning of immunity into COVID forecasts*	
17:15	Micah Brush	Jinniao Qiu		Amy Wiebe	Lilia Krivodonova	Iain Moyles	
	Modelling Long Term Mountain Pine Beetle Population Dynamics	*Numerical approximations of forward-backward SPDEs with applications in finance*		*Non-realizability of polytopes via linear programming*	*Limiters for adaptive computations with the discontinuous Galerkin method*	*A timescale analysis for a mathematical model of in-host immunity response to a liquid nanoparticle vaccine*	
17:40	Kang-Ling Liao	Dawei Wang		Steffen Borgwardt	Seth Taylor	Alex Beams	
	Analysis on mathematical models of somitogenesis in zebrafish	*A high-order deferred correction method for the solution of free boundary problems using penalty iteration, with an application to American option pricing*		*Polytopes and the Separation-Preserving Transition of Clusterings*	*An Arbitrary Resolution Method for Transport Phenomena on the Sphere*	*Using SIR Models to Detect Cross-Immunity in Healthcare Data: A Collision Course with Berkson's Bias*	