

The 5th China-Brazil Symposium on Applied and Computational Mathematics

August 23rd - 24th, 2021
Songshan Lake, Dongguan, China

Conference Agenda

Conference Day 1 - Monday, August 23 rd Web conference with Zoom			
Time			
CT:08:00-08:40 BT:21:00-21:40	On-site opening ceremony - the moderator chairs the meeting Zoom meeting link: https://zoom.us/j/4383862416?pwd=b1JGQjQNTFoVZ2ZpejRkbnJUEtPUT09 Meeting ID: 438 386 2416 Password: 875929		
—	Zoom Meeting Room 1	Zoom Meeting Room 2	Zoom Meeting Room 3
	Zoom meeting link: https://zoom.us/j/4383862416?pwd=b1JGQjQNTFoVZ2ZpejRkbnJUEtPUT09 Meeting ID: 438 386 2416 Password: 875929	Zoom meeting link: https://zoom.us/j/2459770253?pwd=enN5ckgyeH-FIT200RDBSVzNGSGxKQT09 Meeting ID: 245 977 0253 Password: 715468	Zoom meeting link: https://zoom.us/j/4635724542?pwd=NWpnaJFZXRRSUkwK3NN-VnF3REhldz09 Meeting ID: 463 572 4542 Password: 315685
CT:08:40-09:20 BT:21:40-22:20	plenary talk Academician Yaxiang Yuan Title: On the Convergence of Stochastic Gradient Descent with Bandwidth-based Step Size Step Size Chair: Geovani N. Grapiglia	/	/
CT:09:20-10:00 BT:22:20-23:00	plenary talk Prof. Yunqing Huang Title: Adaptive Finite Element Method for Phase Field Models Chair: Jaqueline Mesquita	/	/
CT:10:10-12:10 BT:23:00-01:10	Optimization-talks Chair: Chong Li	Optimization-talks Chair: Qingwen Wang	Scientific Computing-talks Chair: Tofu Ma
CT:10:10-10:30 BT:23:00-23:30	Yuhong Dai Title: Equipping the Barzilai-Borwein Gradient Method with Two-Dimensional Quadratic Termination Property	Min-Li Zeng Title: Scaled Diagonal-times-Toeplitz Splitting Iteration Methods for Solving Discretized Spatial Fractional Diffusion Equations	Ziqing Xie Title: Normalized Wolfe-Powell-type Local Minimax Method for Finding Multiple Unstable Solutions of Nonlinear Elliptic PDEs
CT:10:30-10:50 BT:23:30-23:50	Jinhua Wang Title: Error Bound Properties for Linear Split Feasibility Problems	Michael Ng Title: Approximation Capabilities of Wasserstein Generative Adversarial Networks	Nianyu Yi Title: High accuracy techniques based adaptive finite element method
CT:10:50-11:10 BT:23:50-00:10	Zheng Peng Title: A Discriminative Projection and Sparse Representation-based Classification Framework for Face Recognition	Qingwen Wang Title: Systems of Quaternion Matrix and Tensor Equations	Jun Hu Title: Conforming Finite Element Gradgrad and Divdiv Complexes
CT:11:10-11:30 BT:00:10-00:30	Yafeng Liu Title: Massive Random Access for 5G and Beyond: An Optimization Perspective	Raymond Chan Title: Point Spread Function Reconstruction in Ground-based Astronomy	Kai Jiang Title: Quasiperiodic Systems: Algorithms, Analysis and Application
CT:11:30-11:50 BT:00:30-00:50	Mauricio Louzeiro Title: Fenchel Conjugate and Fenchel Biconjugate on Hadamard Manifolds based on Theangent Bundle	Meilan Qiu Title: Existence and Local Uniqueness of a Weak Solution for Coupling Fractured Porous Medium flow with Incompressible Fluid Flow Mode	Zuoning Zhu Title: From integrable differential-difference hierarchy to integrable nonlinear PDE hierarchy
CT:11:50-12:10 BT:00:50-01:10	/	Zhengjian Bai Title: Riemannian Newton-CG Methods for Constructing a Positive Doubly Stochastic Matrix from Spectral Data	/
CT:12:10-14:00 BT:01:10-03:00	Lunch Break		
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CT:14:00-15:40 BT:03:00-04:40	Optimization-talks Chair: Cong Sun	Optimization-talks Chair: Xinguang Yang	Scientific Computing-talks Chair: Qiang Li
CT:14:00-14:20 BT:03:00-03:20	Deren Han Title: Absolute Value Equations and Optimization	Wen Li Title: Multi-linear PageRank: Theory analysis and Numerical Algorithms	Yanping Chen Title: Immersed Finite Element Method for Time Fractional Diffusion Problems with Discontinuous Coefficients
CT:14:20-14:40 BT:03:20-03:40	Bo Yu Title: A Reduced Half Thresholding Algorithm	Jingtang Ma Title: Finite Difference Methods for the Hamilton-Jacobi-Bellman Equations Arising in Regime Switching Optimal Investment	Yin Yang Title: Compatible Energy Stability of Variable-step L1 Scheme For the Time-Fractional MBE Equation with Slope selection
CT:14:40-15:00 BT:03:40-04:00	Chunfeng Cui Title: Active Subspace of Neural Networks: Structural Analysis and Universal Attacks	Jianwei Shen Title: Turing Instability in the Reaction-Diffusion Network	Shishun Li Title: Space-Time Multiplicative Domain Decomposition Method for Parabolic Equations
CT:15:00-15:20 BT:04:00-04:20	Cong Sun Title: Cyclic gradient methods for smooth unconstrained problems	Xinguang Yang Title: Dynamics and Singular limit of the 3D Incompressible Navier-Stokes Equations with Nonlinear Damping and Oscillating Forces	Qiang Li Title: A Level set Based Immersed Boundary Method For Simulation of Non-Isothermal Viscoelastic Melt Filling Process
CT:15:20-15:40 BT:04:20-04:40	Yunbin Zhao Title: DOMP Algorithms for Optimization Problems with Sparsity Constraints	Weihua Deng Title: Functional Distribution of Multimodal Diffusion: Multiscale Modeling and Computation	Pingbing Ming Title: A Nitsche Type Multiscale Method with Non-matching Grids
CT:15:40-15:50 BT:04:40-04:50	Break		
CT:15:50-16:30 BT:04:50-05:30	plenary talk Academician Tao Tang Title: Symmetry Breaking of Phase Field Models Chair: Qunfeng Liu	/	/
CT:16:30-17:10 BT:05:30-06:10	plenary talk Chairman Zhengnan Yao Title: 天气预报中的计算机和数学处理方法探讨 Chair: Qunfeng Liu	/	/
CT:17:10-19:00 BT:06:10-08:00	Dinner Break		
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CT:19:00-19:40 BT:08:00-08:40	plenary talk José Mario Martínez Title: Acceleration of Optimization Methods Chair: Jaqueline Mesquita	/	/
CT:19:40-20:20 BT:08:40-09:20	plenary talk Felipe Linhares Title: The Cauchy Problem for the L2-critical Generalized Zakharov-Kuznetsov Equation in Dimension 3 Chair: Jaqueline Mesquita	/	/
CT:20:30-22:10 BT:09:30-11:10	Differential Equations-talks Chair: Tofu Ma	Optimization-talks Chair: Elizabeth Karas	Numerical Analysis and Artificial Intelligence-talks Chair: Weigang Li
CT:20:30-20:50 BT:09:30-09:50	Pierluigi Benevieri Title: Eigenvalues and Eigenvectors for Nonlinear Problems with Fredholm Operators	Carlile Lavor Title: Isometries in the Conformal Model of the 3D Space	Cassio Oishi Title: Numerical Modelling and Simulations of Non-Newtonian Fluid Flows
CT:20:50-21:10 BT:09:50-10:10	Jaqueline Mesquita Title: Linearized Instability for Neutral FDEs with State-dependent delays	Geovani Grapiglia Title: A Nonmonotone Line Search Method with Finite-Difference Gradient Approximations	Paulo Mancera Title: Mathematical Models on Thyroid Cancer Refractory to Iodine-131 under Treatment
CT:21:10-21:30 BT:10:10-10:30	Martin Bohner Title: Hyers-Ulam and Hyers-Ulam-Rassias Stability of First-Order Linear and Nonlinear Dynamic Equations	Paulo Silva Silva Title: Optimization as a Tool against Covid-19	Qinhong Zhang Title: A Semi-Infinite Optimization Approach to Badly and Well Behaved
CT:21:30-21:50 BT:10:30-10:50	/	Sandra Augusta Santos Title: On Mathematical Programs with Equilibrium Constraints and a Sequential Optimality Condition based on a Nonsmooth formulation	Diego Zontini Title: Error Bounds in Computation of Outer Inverses with Generalized-Schultz Iterative Methods and its Use in Computing of Moore-Penrose inverse
CT:21:50-22:10 BT:10:50-11:10	/	Emerson Butyn Title: A Derivative-free Trust-region Algorithm with Copula-Based Models for Probability Maximization Problems	Sylvio Barbon Junior Title: Using Meta-learning in Online Machine Learning Methods
Conference details link: http://bscam.com			

Conference Day 2 - Tuesday, August 24 th Web conference with Zoom			
Time			
—	Zoom Meeting Room 1	Zoom Meeting Room 2	
	Zoom meeting link: https://zoom.us/j/4383862416?pwd=b1JGQjQNTFoVZ2ZpejRkbnJUEtPUT09 Meeting ID: 438 386 2416 Password: 875929	Zoom meeting link: https://zoom.us/j/2459770253?pwd=enN5ckgyeH-FIT200RDBSVzNGSGxKQT09 Meeting ID: 245 977 0253 Password: 715468	
CT:08:00-08:40 BT:21:00-21:40	plenary talk Prof. Jie Shen Title: Efficient and accurate SAV schemes for Navier-Stokes equations Chair: Shi Jin	/	
CT:08:40-09:20 BT:21:40-22:20	plenary talk Prof. Aihui Zhou Title: Reliability and Efficiency of Finite Element Approximations for Electronic Structure Models Chair: Liuqiang Zhong	/	
CT:09:20-10:00 BT:22:20-23:00	plenary talk HuaWei Expert Bo Bai Title: 信息与通信理论中的若干数学问题 Chair: Jinyun Yuan	/	
CT:10:00-10:10 BT:23:00-23:10	Break		
CT:10:10-12:10 BT:23:10-01:10	Optimization-talks Chair: Hailin Sun	Optimization-talks Chair: Tong Zhang	
CT:10:10-10:30 BT:23:10-23:30	Xiaojun Chen Title: Nonsmooth Nonconvex Optimization in Deep Learning	Yun Xue Title: 大数据分析技术在机器辅助创新中的研究与应用	
CT:10:30-10:50 BT:23:30-23:50	Hailin Sun Title: Distributionally Robust Stochastic Variational Inequalities	Liuqiang Zhong Title: A Modified Weak Galerkin Method for $\mathcal{H}(\text{curl})$ -elliptic Problem	
CT:10:50-11:10 BT:23:50-00:10	Gonglin Yuan Title: Applications of the Projection Technique for Two Open Problems	Tong Zhang Title: Unconditional Stability of Second Order IMEX Schemes for the Incompressible Flows	
CT:11:10-11:30 BT:00:10-00:30	Min Tao Title: On the Linear Convergence to Weak/Standard d -Stationary Points of DCA-Based Algorithms for Structured Nonsmooth DC Programming	Shuhua Zhang Title: Optimal Abatement and Emission Permit Trading Policies in a Dynamic Transboundary Pollution Game	
CT:11:30-11:50 BT:00:30-00:50	Yangin Bai Title: Intrinsic Fuzzy Laplacian Twin Support Vector Machine for Semi-supervised Classification	Shuying Zhai Title: Stability and Error Estimate of the Operator Splitting Method for the Phase Field Crystal Equation	
CT:11:50-12:05 BT:00:50-01:05	ppt conference presentation Chairman Zhengnan Yao Title: 天气预报中的计算机和数学处理方法探讨	/	
CT:11:50-14:00 BT:00:50-03:00	Lunch Break		
—	Zoom Meeting Room 1	Zoom Meeting Room 2	
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CT:14:00-14:40 BT:03:00-03:40	plenary talk Prof. Zhifeng Hao Title: 机器学习算法模型的探索 Chair: Wanyou Cheng	/	
CT:14:40-15:20 BT:03:40-04:20	plenary talk Prof. Shi Jin Title: Random Batch Methods for molecular dynamics Chair: Jinyun Yuan	/	
CT:15:20-15:30 BT:04:20-04:30	Closing Ceremony		
CT: 15:30 BT: 04:30	Visit Huawei Xilixi Beipo Village in Guangdong		
—	Zoom Meeting Room 1	Zoom Meeting Room 2	
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CT:19:00-19:40 BT:08:00-08:40	plenary talk Nelson Maculan Title: New Mixed Integer Non Linear Programming Models for the Euclidean Steiner Tree Problem in N -Dimensions Chair: Carlile Lavor	/	
CT:19:40-20:20 BT:08:40-09:20	plenary talk Celso Ribeiro Title: Biased Random-Key Genetic Algorithms Chair: Carlile Lavor	/	
CT:20:30-22:10 BT:09:30-11:10	Optimization-talks Chair: Paulo Silva Silva	Numerical Analysis and Artificial Intelligence-talks Chair: Cassio Oishi	
CT:20:30-20:50 BT:09:30-09:50	Luiz Carlos Matoli Title: Augmented Lagrangian Algorithms for Solving the Continuous Nonlinear Resource Allocation Problem	Jorge Zubelli Title: Local and Stochastic Volatility Estimation Driven by the Available Data	
CT:20:50-21:10 BT:09:50-10:10	Orizon Ferreira Title: Alternating Conditional Gradient Method for Convex Feasibility Problems	Tofu Ma Title: Asymptotics of Timoshenko Model with Hybrid Dissipation	
CT:21:10-21:30 BT:10:10-10:30	Teles Fernandes Title: On the Globalization of Newton Method on Riemannian Manifolds	Li Weigang Title: Once Learning, One/Few-shot Learning and You Only Look Once Model	
CT:21:30-21:50 BT:10:30-10:50	Adriano Delfino Title: An approach to Chance Constraints	Yang Zhang Title: The Tensor Rank Problems over the Quaternions	
CT:21:50-22:10 BT:10:50-11:10	Ana Paula Chorobura Title: Multi-objective infinite Horizon Optimal Control Problems: Characterization of the Pareto Fronts and Reconstruction of Optimal Trajectories	/	
CT:22:10 BT:11:10	Departure		
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