CONFERENCE PROGRAM

	Monday Morning, May 15th	
	Session M-1A Chair: *Xiaosheng Zhuang*	**Session M-1B** Chair: *Ryan Matzke*
8:00	**Yifei Lou**, *University of Texas at Dallas*, A Lifted ℓ_1 Framework for Sparse Recovery	**Peter Boyvalenkov**, *Institute of Mathematics and Informatics, Bulgarian Academy of Sciences*, Universal Lower Bounds on Polarization of Spherical Codes and Designs
8:20	**Sung Ha Kang**, *Georgia Institute of Technology*, Weak Form Approach to Identifying Differential Equation	**E. White**, *Florida State University*, Understanding the Thomson Problem from a Machine Learning Perspective
8:40	**Minghao W. Rostami**, *Syracuse University*, Predicting Fluid Particle Trajectories without Flow Computation: A Data-driven Approach	**Dustin G. Mixon**, *The Ohio State University*, Neural Collapse with Unconstrained Features
9:00	**Erin E. Tripp**, *Air Force Research Laboratory*, Identifying Low-Dimensional Structure for Functional Compression	**A. Anderson**, *Florida State University*, Explicit Packing Asymptotes on some Minkowski Measurable Sets of Dimension $D \in (0, 1)$
9:20	**Jianmin Liao**, *Syracuse University*, A Two-stage Iterative Method for Sparse Generalized Eigenvalue Problem	**Jinchao Feng**, *Johns Hopkins University*, Learning Interaction Variables and Kernels from Observations of Agent-Based Systems
9:40	**Seok-Young Chung**, *University of Central Florida*, Graph Barron Space and Graph Convolution Neural Networks	**M. Mastrianni**, *University of Minnesota*, Polarization and Greedy Energy on the Sphere
10:00	**Coffee Break**	
10:40	**Opening Address** **Session P-2** Chair: *Allan Pinkus* **Nira Dyn**, *School of Mathematical Sciences, Tel Aviv University, Israel*, Metric Approximation of Set-Valued Functions	
11:30	**Lunch Break**	

	Monday Afternoon, May 15th	
	Session M-3A Chair: *Lixin Shen*	**Session M-3B** Chair: *Alex Vlasiuk*
13:20	**Bernhard G. Bodmann**, *University of Houston*, Sparse Recovery and Heat Kernels on Graphs	**J. Jasper**, *Air Force Institute of Technology*, Optimal Line Packings and Strongly Regular Graphs
13:40	**Guohui Song**, *Old Dominion University*, Decentralized Algorithms for Spatially Distributed Systems	**Pedro R. López-Gómez**, *Universidad de Cantabria*, Low-energy Points on the Sphere and the Real Projective Plane
14:00	**Jing Qin**, *University of Kentucky*, Dual-Graph Regularized Foreground Background Separation	**Abiy Tasissa**, *Tufts University*, Locally Sparse Representations via Structured Triangulations
14:20	**Xiaosheng Zhuang**, *City University of Hong Kong*, Graph Framelet Neural Networks	**Joel Nathe**, *University of Minnesota*, Geodesic Distance Riesz Energy on the Projective Space
14:40	**Lixin Shen**, *Syracuse University*, A Constructive Approach for Computing the Proximity Operator of the p-th Power of the ℓ_1-norm	**Matthew Fickus**, *Air Force Institute of Technology*, Doubly Transitive Equiangular Tight Frames that Contain Regular Simplices
15:00	**Coffee Break**	
	Session P-4 Chair: *Carl de Boor*	
15:40	**Tom Lyche**, *University of Oslo*, Simplex Spline Bases on Triangular and Simplicial Partitions	
	Session P-5 Chair: *Carl de Boor*	
16:40	**Ming-Jun Lai**, *University of Georgia*, Multivariate Splines and Their Applications	
17:45	**Welcome Reception** (Wilson Hall Lobby/Patio)	

	Tuesday Morning, May 16th	
	Session M-6A Chair: *Akram Aldroubi*	**Session M-6B** Chair: *Sergiy Borodachov*
8:00	**Lukas Liehr**, *University of Vienna*, Advances in Phaseless Sampling of the Short-time Fourier Transform	**T. Sorokina**, *Towson University*, Piecewise Divergence-free and Harmonic Finite Elements
8:20	**K. Kornelson**, *University of Oklahoma*, Norm Retrieval from Few Spatiotemporal Samples	**V. Baramidze**, *Western Illinois University*, Local Approximation of Cross-Boundary Derivatives for the Hermite Interpolation over Clough-Tocher Spherical Triangulations
8:40	**D. Freeman**, *Saint Louis University*, Stability Measurements for Phase Retrieval	**Maxim L. Yattselev**, *Indiana University-Purdue University Indianapolis*, On Multipoint Padé Approximants whose Poles Accumulate on Contours that Separate the Plane
9:00	**D. Ghoreishi**, *Saint Louis University*, Stable Phase Retrieval under Purturbations	**S. Denisov**, *University of Wisconsin - Madison*, Szegő Class and the Scattering Problem
9:20	**M. Wellershoff**, *University of Maryland, College Park*, What's New in Wavelet Phase Retrieval?	**Zhaiming Shen**, *University of Georgia*, Applying Kolmogorov Superposition Theorem to Break the Curse of Dimensionality
9:40	**Wedad Alharbi**, *Saint Louis University*, Recovery of Signals from Saturated Linear Measurements	**T. W. Hu**, *University of Georgia*, A Spline Method for G^r Smooth Interpolating Curves and Surfaces of Arbitrary Triangle Mesh
10:00	**Coffee Break**	
	Session P-7 Chair: *Edward Saff*	
10:40	**Carla Manni**, *University of Rome Tor Vergata*, Tchebycheffian Splines and Isogeometric Methods	
11:30	**Lunch Break**	

	Tuesday Afternoon, May 16th	
	Session M-8A Chair: *Lu Xiong*	**Session M-8B** Chair: *Tatyana Sorokina*
13:00	**Yunlong Feng**, *University at Albany, SUNY*, On Learning with Bounded Loss Functions	**D. P. Hardin**, *Vanderbilt University*, Inverse Potential Problems in Divergence Form for Measures Supported in the Plane
13:20	**John Ford**, *Middle Tennessee State University*, Numerical Convolution of Probability Densities using Knot Addition Method for Non-uniform Polynomial Interpolation	**Sergiy Borodachov**, *Towson University*, Pointwise Optimal Recovery Method for Twice Differentiable Functions on a Box
13:40	**Mengyu Xu**, *University of Central Florida*, A High Dimensional Cramér-von Mises Test	**Scott Kersey**, *Georgia Southern University*, Interpolation and Approximation on Sparse Grids
14:00	**Qiang Wu**, *Middle Tennessee State University*, Bias Correction for Distributed Machine Learning	**T. Hogan**, *The Boeing Company*, A Cutting Plane Approach to Constrained Spline Approximation
14:20	**Xingyi Guo**, *Vanderbilt University Medical Center*, Unraveling the Genetic Basis of Cancer Risk: Leveraging Statistical and Deep Transfer Learning Approaches	**Tanya Morton**, *MathWorks*, Climate Change and Approximation Theory
14:40	**G. Toban**, *Middle Tennessee State University*, REM Sleep Stage Identification with Raw Single Channel EEG	**Lirit Fuksman**, *University of Texas at Dallas*, Nonparametric Bivariate Density Estimation for Missing Censored Lifetimes
15:00	**Coffee Break**	
	Session P-9 **THE 35TH ANNUAL SHANKS LECTURE** Chair: *Mike Neamtu*	
15:40	**Wolfgang Dahmen**, *University of South Carolina and RWTH Aachen*, High-Dimensional Approximation, Compositional Sparsity, and Deep Neural Networks	
17:00	**Reception/Barbecue Dinner** (Wilson Hall Lobby/Patio)	

	Wednesday Morning, May 17th	
	Session M-10A Chair: *Ilya Krishtal*	**Session M-10B** Chair: *Edward Saff*
8:00	**Simon Foucart**, *Texas A&M University*, On the Optimal Recovery of Graph Signals	**Tongseok Lim**, *Purdue University*, Generalized Nash Equilibria and their Existence
8:20	**M. Maggioni**, *Johns Hopkins University*, Learning Interaction Laws in Particle- and Agent-based Systems	**Nathaniel Tenpas**, *Vanderbilt University*, Discrete Periodic Energy Problems
8:40	**Alexander M. Powell**, *Vanderbilt University*, Iteratively Consistent One-Bit Phase Retrieval	**A. Legg**, *Purdue University Fort Wayne*, Point Source Equilibrium Problems with Connections to Weighted Quadrature Domains
9:00	**José Luis Romero**, *University of Vienna*, Statistics for Coulomb Gases at Low Temperatures, Sampling and Interpolation	**Cameron Davies**, *University of Toronto*, Simplicial Patterns in Mildly Repulsive Aggregation Dynamics
9:20	**Qiyu Sun**, *University of Central Florida*, Wiener Filters and Inverse Filters for Graph Signal Processing	**Matthew Rosenzweig**, *MIT*, Systems with Riesz Interactions in the Mean-Field Regime
9:40	**Roza Aceska**, *Ball State University*, Dual Frames under Constraints	**M. H. Vu**, *Vanderbilt University*, Equilibrium Measures of Riesz Energies with External Fields
10:00	**Coffee Break**	
	Session P-11 Chair: *Greg Fasshauer*	
10:40	**Larry L. Schumaker**, *Vanderbilt University*, Computing with Splines on Curved Triangulations	
11:30	**Lunch Break**	

	Wednesday Afternoon, May 17th	
	Session M-12A Chair: *Akram Aldroubi*	**Session M-12B** Chair: *Michael DiPasquale*
13:00	**Azita Mayeli**, *City Univ. of New York*, The Eigenvalue Distribution of Time-frequency Limiting Operators in Higher Dimensions	**A. Dietz**, *USI Lugano*, Numerical Integration for Subdivision IGA
13:20	**Rocio Diaz Martin**, *Vanderbilt University*, Data Embeddings from Transport Theory	**Michelangelo Marsala**, *Inria, Université Côte d'Azur, France*, C^2 Cubic Spline Quasi-Interpolants on Arbitrary Triangulations
13:40	**Gustavo Kunde Rohde**, *University of Virginia*, Data Representation With Optimal Transport	**Boris Shekhtman**, *University of South Florida*, Polynomial Interpolation on Arbitrary Varieties
14:00	**Shiying Li**, *University of North Carolina at Chapel Hill*, Transport Subspace Models and Invariance Encoding	**K. M. Shepherd**, *Brigham Young Univ.*, Locally-Verifiable Sufficient Conditions for Exactness of the Hierarchical B-spline Discrete de Rham Complex in n Dimensions
14:20	**Soheil Kolouri**, *Vanderbilt University*, Optimal Partial Transport in Machine Learning	**Hendrik Speleers**, *University of Rome Tor Vergata*, Constructing C^1 Cubic Powell-Sabin B-Splines with Super-Smoothness
14:40	**Steven Damelin**, *Univ. of Michigan*, Near Whitney Extensions, Non-rigid Alignment of Point Cloud Data, and Optimal Transport	**Sonya Stanley**, *Samford University*, Normalizied Circular Bernstein-Bezier Polynomials
15:00	**Coffee Break**	
	Session M-13A Chair: *Ilya Krishtal*	**Session M-13B** Chair: *Hendrik Speleers*
15:40	**M. Bownik**, *University of Oregon*, On Akemann and Weaver Conjecture	**Julianna Tymoczko**, *Smith College*, Generalized Splines in Degree Two and the Dimension of Bivariate Spline Spaces
16:00	**B. Johnson**, *Saint Louis University*, Stability of Iterated Filter Banks	**N. Villamizar**, *Swansea University*, Multivariate Splines on Oranges
16:20	**K. Hamm**, *University of Texas at Arlington*, Wasserstein Isometric Mapping	**Beihui Yuan**, *Swansea University*, An Algebraic Framework for Geometric Continuous Splines
16:40	**Longxiu Huang**, *Michigan State University*, Matrix Completion with Cross-Concentrated Sampling	**Michael DiPasquale**, *University of South Alabama*, Planar Splines on a Subdivision with a Single Interior Edge
17:00	**A. Petrosyan**, *Georgia Institute of Technology*, Rank-aware Orthogonally Weighted Regularization for Joint Sparse Recovery	**Laura De Carli**, *Florida International University*, Applications of Lax-Milgram Theorem to Problems in Frame Theory
17:20	**Caroline Moosmueller**, *University of North Carolina at Chapel Hill*, Approximations and Learning in the Wasserstein Space	**Lu Xiong**, *Middle Tennessee State University*, Distributed Least Square Monte Carlo for American Option Pricing
17:40	**Mark Iwen**, *Michigan State University*, Sparse Spectral Methods for Solving High-Dimensional and Multiscale Elliptic PDEs	**Tian-Xiao He**, *Illinois Wesleyan University*, A Study of Two Approaches for Polylogarithm Functions: Generalized Ramanujan Integrals and Special Functions
18:30	**Banquet** (Loews Vanderbilt Hotel, Starstruck Space, mezzanine level)	

	Thursday Morning, May 18th	
	Session M-14A Chair: *Peter Binev*	**Session M-14B** Chair: *Javad Mashreghi*
8:00	**Peter Binev**, *University of South Carolina*, Near-Optimal Learning	**Oleg Asipchuk**, *Florida International University*, Explicit Exponential Bases on Disconnected Domains
8:20	**Gerrit Welper**, *University of Central Florida*, Approximation Results for Gradient Descent Trained Shallow Neural Networks	**Pierre-Olivier Parisé**, *University of Hawaii at Manoa*, Divergence of Taylor Series in de Branges-Rovnyak Spaces
8:40	**F. Bartel**, *Chemnitz University of Technology*, Nonlinear Approximation with Subsampled Rank-1 Lattices	**Alberto A. Condori**, *Florida Gulf Coast University*, Local Regularization via Truncated Toeplitz Operators
9:00	**S. Faigenbaum-Golovin**, *Duke University*, Geometric Method for Manifold Approximation for High-Dimensional Noisy Scattered Data	**D. Seco**, *Universidad de La Laguna*, Distribution of Primes and Approximation on Weighted Dirichlet Spaces
9:20	**N. Sharon**, *Tel Aviv University*, Multiscale Approximation with Manifold-valued Data	**Raúl E. Curto**, *The University of Iowa*, Polynomial Embeddings of Unilateral Weighted Shifts in 2-variable Weighted Shifts
9:40	**Leslaw Skrzypek**, *University of South Florida*, Minimal Versus Generalized Minimal Projections	**J. Mashreghi**, *Laval University*, Non-recoverable Signals via Fourier Partial Sums
10:00	**Coffee Break**	
	Session P-15 Chair: *Peter Alfeld*	
10:40	**Oleg Davydov**, *University of Giessen, Germany*, Meshless Finite Difference Methods and Overlap Splines	
11:30	**Lunch Break**	

	Thursday Afternoon, May 18th	
	Session M-16A Chair: *Bernhard Bodmann/Simon Foucart*	**Session C-16B** Chair: *Scott Kersey*
13:00	**Rishabh Dudeja**, *Harvard University*, Spectral Universality of Regularized Linear Regression with Nearly Deterministic Sensing Matrices	**V. V. Babenko**, *Drake University*, On Landau-Kolmogorov-type Inequalities for Charges and their Applications
13:20	**E. J. King**, *Colorado State University*, PCA is not Dead: Vectorized Persistent Homology and Flag Medians	**Yuliya Babenko**, *Kennesaw State University*, Taikov-type Inequalities on Equipped Hilbert Spaces and their Applications
13:40	**Boris Hanin**, *Princeton University*, Ridgeless Interpolation with Shallow Univariate ReLU Networks	**Christina Giannitsi**, *Georgia Institute of Technology*, Lower Estimate on Square Function of an Indicator Set
14:00	**Chunyang Liao**, *Texas A&M University*, Optimal Recovery from Inaccurate Data in Hilbert Spaces: Regularize, but what of the Parameter?	**David W. Roach**, *Murray State University*, The Complete Parametrization of the Length Sixteen Wavelets
14:20	**Dylan Domel-White**, *Vanderbilt University*, Iteratively Consistent One-Bit Phase Retrieval	**N. Thapa**, *Dallas College*, Identification Problem in Second-Order Nonlinear Hyperbolic PDE with Initial and Boundary Data
14:40	**Nathan Gaby**, *Georgia State University*, Neural Control of Parametric Solutions for High-dimensional Evolution PDEs	**Joel A. Rosenfeld**, *University of South Florida*, Operator Theoretic Approaches to System Identiffication and Dynamic Mode Decompositions
15:00	**Coffee Break**	
16:00	**End of Conference**	