

Morning talks	Monday 28.07.		Morning talks
	C1	C2	
9:00 - 10:00	Gröchenig		9:00 - 10:00
	Mobile sampling on the sphere		
10:00 - 10:10	Break		10:00 - 10:10
	Invariant Theory for Machine Learning	Inverse Problems and Phase Retrieval	
10:10 - 10:35	Blum-Smith	Aslan, Leeuwen, Mosk, Salanevich	10:10 - 10:35
	Almost-universal invariants for machine learning	PtyGenography: using generative models for regularization of the phase retrieval problem	
10:35 - 11:00	Balan, Dym, Levy, Tsoukanis, Wellershoff	Zhao, Wang, Dragotti	10:35 - 11:00
	Quantitative Bounds for Sorting based Permutation Invariant Embeddings	Reconstructing 3-D FRI shapes from tomographic projections at unknown angles	
11:00 - 11:25	Coffee break		11:00 - 11:25
11:25 - 11:50	Iverson	Jaming, Perez III	11:25 - 11:50
	Group invariants of minimum distortion	Sign retrieval in spaces of variable bandwidth	
11:50 - 12:15	Edidin, Katz	Chen, Chen, Jalali, Maleki	11:50 - 12:15
	Orbit recovery from invariants of low degree in representations of finite groups	Deep Memory Unrolled Networks for Solving Imaging Linear Inverse Problems	
12:15 - 12:40	Nordenfors, Flinth		12:15 - 12:40
	Data Augmentation and Regularization for Learning Group Equivariance		
14:20 - 15:20	Davenport		14:20 - 15:20
	Linear algebraic perspectives on modern broadband signal processing		
15:20 - 15:30	Break		15:20 - 15:30
	Frames, Riesz Bases, and Related Topics	Machine Learning and Neural Networks I	
15:30 - 15:55	Aldroubi	Hanon, Cavaco, Kiely, Jacques	15:30 - 15:55
	Frames for Source Recovery in Dynamical Systems	Herglotz-NET: implicit neural representation of spherical data with harmonic positional encoding	
15:55 - 16:20	Lee	Kouni	15:55 - 16:20
	Existence and construction of exponential bases	How to warm-start your unfolding network	
16:20 - 16:45	Coffee break		16:20 - 16:45
16:45 - 17:10	Marceca, Buckley, Singer	Geuchen	16:45 - 17:10
	Sampling properties of zeros of Gaussian entire functions	Approximation properties of complex-valued neural networks: An overview	
17:10 - 17:35	Bownik	Matz	17:10 - 17:35
	On exponential frames near the critical density	Low-Complexity Reconstruction of Sampled Graph Signals in Local Graph Fourier Subspaces	
17:35 - 18:00	Malikiosis	Matt, Stöger	17:35 - 18:00
	A linear programming approach to Fuglede's conjecture in $\mathbb{Z}_p^3$	Implicit ℓ^1 - regularization of positively quadratically reparameterized linear regression: precise upper and lower bounds	
18:00 - 20:00	Reception		18:00 - 20:00

Morning talks	Tuesday 29.07.		Morning talks
	C1	C2	
9:00 - 10:00	Bandeira Inference in High Dimensions, Algorithms, and Random Matrices		9:00 - 10:00
10:00 - 10:10	Break		10:00 - 10:10
	Machine Learning Meets Computational Imaging	Sparsity and Compressive Sensing	
10:10 - 10:35	Heckel Data-Driven Strategies for Reliable Imaging: Optimized Training Sets and Unsupervised Motion Correction	Beckmann, Jeschke Orthogonal Matching Pursuit based Reconstruction for Modulo Hysteresis Operators	10:10 - 10:35
10:35 - 11:00	Fridovich-Keil Accurate, provable, and fast nonlinear tomographic reconstruction	Veselovska, Prestin Super-resolution via Prony-Type Polynomials	10:35 - 11:00
11:00 - 11:25	Coffee break		11:00 - 11:25
11:25 - 11:50	Romberg A Fast Broadband Beamspace Transformation	Rademacher, Sing-Long Lift and Unmask: Sparse Models by Lifting the Atomic Norm	11:25 - 11:50
11:50 - 12:15	Zhao Towards Hierarchical Flow Matching for Generative Modeling	Diab Selecting Optimal Sampling Rate for Stable Super-Resolution	11:50 - 12:15
12:15 - 12:40	Ancelin, Chen, Saad-Falcon, Guan, Kaushik, Singh, Urcelay MANGO: Learning Disentangled Image Transformation Manifolds with Grouped Operators	Zea, Laudato, Andén Sparse wavefield reconstruction and denoising with boostlets	12:15 - 12:40
14:20 - 15:20	Bardenet Sampling determinantal point processes on a quantum computer		14:20 - 15:20
15:20 - 15:30	Break		15:20 - 15:30
	Optimal Frames and Codes	Fourier Analysis and Operator Theory	
15:30 - 15:55	Lewandowska On the maximal projection constants	Casey Sampling Expansions for AFB Signals via Change Point Detection	15:30 - 15:55
15:55 - 16:20	King Circuits and Symmetries of Paley Equiangular Tight Frames	Li New perspectives on Fourier matrices	15:55 - 16:20
16:20 - 16:45	Coffee break		16:20 - 16:45
16:45 - 17:10	Jasper, Mixon Nearly tight weighted $\mathbb{S}^2$ -designs in complex projective spaces of every dimension	Caragea Towards a conjecture concerning minors of Fourier matrices	16:45 - 17:10
17:10 - 17:35	Balla, Kučerák, Shu Laplacians and equioverlapping vectors	Zayed Generalized Fractional Stockwell and Wavelet Transforms	17:10 - 17:35
17:35 - 18:00	Gilles, Führ The Restricted Isometry Property for Measurements from Group Orbits	Kircheis, Potts Nonequispaced fast Fourier transforms for bandlimited functions	17:35 - 18:00
18:00 - 20:00	Posters and Refreshments		18:00 - 20:00

Morning talks	Wednesday 30.07.		Morning talks
	C1	C2	
9:00 - 10:00	Dabo		9:00 - 10:00
	Dimension reduction properties and supervised learning of complex Functional Data		
10:00 - 10:10	Break		10:00 - 10:10
	Advances in Phase Retrieval	Machine Learning and Neural Networks II	
10:10 - 10:35	Jaming	Mhaskar, O'Dowd, Tsoukanis	10:10 - 10:35
	Phase retrieval for solutions of the Shrödinger equations	Active Learning Classification from a Signal Separation Perspective	
10:35 - 11:00	Taylor	Özçil, Koku, Sekmen, Bilgin	10:35 - 11:00
	Phase retrieval in function spaces	Optimizing Class Separability via Projection-Based Discriminative Basis Selection	
11:00 - 11:25	Coffee break		11:00 - 11:25
11:25 - 11:50	Bendory, Edidin	Nenov, Lostanlen, Balazs	11:25 - 11:50
	The generalized phase retrieval problem over compact groups	Robust Deconvolution with Parseval Filterbanks	
11:50 - 12:15	Dirksen, Krahmer, Römer, Salanevich	Vega, Boahen, Boedihardjo, Iwen	11:50 - 12:15
	Recovery guarantees for low-count Poisson and Bernoulli phase retrieval	On Extended Concentration Inequalities for Fast JL Embeddings of Infinite Sets	
12:15 - 12:40	Favazza, Frank, Freeman, Ghoreishi, King, Randrianarivony	Dirksen, Li, Maly	12:15 - 12:40
	Frames and Phase Retrieval for Vector Bundles	Subspace estimation under coarse quantization	
14:20 - 15:20	Mallat		14:20 - 15:20
	From Generative AI to Statistical Physics Through Sparse Harmonic Analysis		
15:20 - 15:30	Break		15:20 - 15:30
	Energy- and Score-Based Models	Graph Signal Processing	
15:30 - 15:55	Grenioux	Cheng, Sun, Zheng	15:30 - 15:55
	Learned Reference-based Diffusion Sampling for Multi-Modal Distributions	Iterative polynomial approximation algorithms for inverse graph filters	
15:55 - 16:20	Zhang	Monti	15:55 - 16:20
	Multi-scale representations for natural image modeling	Paley-Wiener spaces of discrete entire functions on $\mathbb{Z}^2$	
16:20 - 16:45	Coffee break		16:20 - 16:45
16:45 - 17:10	Allys, Pierre, Tsouros, Richard	Führ, Ghandehari	16:45 - 17:10
	Generative models and component separations for physical fields with Scattering Transforms.	Consistent sampling of Paley-Wiener functions on graphons	
17:10 - 17:35	Elata, Michaeli, Elad	Bandeira, Blasiok, Dmitriev, Faure, Kireeva, Kunisky	17:10 - 17:35
	PSC: Posterior Sampling-Based Compression	The Lovász number of random circulant graphs	
17:35 - 18:00	Getter	Pesenson	17:35 - 18:00
	Digital implementations of deep feature extractors are intrinsically informative	Quadrature formulas on graphs	
18:00 - 20:00	Posters and Refreshments		18:00 - 20:00

Morning talks	Thursday 31.07.		Morning talks
	C1	C2	
9:00 - 10:00	Pfister		9:00 - 10:00
	The Intersection between Compressed Sensing and Error Correction		
10:00 - 10:10	Break		10:00 - 10:10
	Unlimited Sensing	Estimation, Detection and Applications	
10:10 - 10:35	Bhandari	Shamsi, Marvasti	10:10 - 10:35
	Unlimited Sensing: From Theory to Practice	Distributed Estimation with Sparsely Accessible Information	
10:35 - 11:00	Soltanalian	Balanov, Kreymer, Bendory	10:35 - 11:00
	New Frontiers in One-Bit Signal Processing: From Sample Abundance to Unlimited Sampling	A note on the sample complexity of multi-target detection	
11:00 - 11:25	Coffee break		11:00 - 11:25
11:25 - 11:50	Joseph	Parhi, Adcock	11:25 - 11:50
	Compressed Sensing with Modulo Preprocessing	Upper Bounds on Averaged Sampling Numbers for General Model Classes	
11:50 - 12:15	Krahmer, Patricio, Catala	Israel, Mayeli, Hughes	11:50 - 12:15
	On a Recovery Method with Approximation Guarantees for Noisy Unlimited Sampling	Wave packet systems and connections to spectral analysis of limiting operators	
12:15 - 12:40	Zhu, Guo, Bhandari	Weidensager	12:15 - 12:40
	Ironing the Modulo Folds: Unlimited Sensing with 100x Bandwidth Expansion	Periodic Sobolev-Besov regularity in terms of Chui-Wang wavelet coefficients	
12:40 - 13:05	Pawlak	Hammerich	12:40 - 13:05
	Level-Crossings Sampling for Signal Recovery with Slepian Derivatives	Design of pulse shapes based on sampling with Gaussian prefilter	
	Free afternoon		
18:00	Conference dinner		18:00

	Friday 01.08.		
Morning talks	C1	C2	Morning talks
	Sampling and Learning of Deep Neural Networks	Frames and Reproducing Kernels	
	Sule, Czaja	Massion, Massart	
9:00 - 9:25	Neumann eigenmaps for landmark embedding	Grassmannian Frame Computation via Accelerated Alternating Projections	9:00 - 9:25
	Brugiapaglia	Buck, Frederick, Stangl, Okoudjou	
9:25 - 9:50	Practical existence theorems for deep learning approximation in high dimensions	Spectral properties of the Gram matrix for Gabor systems generated by B-splines	9:25 - 9:50
	Voigtlaender	Aceska, Malonzo, Velasco	
9:50 - 10:15	On the Lipschitz constant of random ReLU neural networks	Oblique Dual Frame Completion	9:50 - 10:15
	Neuman, Li	Iske	
10:15 - 10:40	Consistency of augmentation graph and network approximability in contrastive learning	On the Convergence of Irregular Sampling in Reproducing Kernel Hilbert Spaces	10:15 - 10:40
10:40 - 11:05	Coffee break		10:40 - 11:05
	Zech	Iske, Ohlsen	
11:05 - 11:30	Distribution Learning Via Neural ODEs	Irregular Sampling of High-Dimensional Functions in Reproducing Kernel Hilbert Spaces	11:05 - 11:30
	Reshma, Pradhan, Singh, Tenneti, Sasmal, Randhi	Riccardi	
11:30 - 11:55	Deep Learned-CoSaMP Network for Signal Denoising	An optimal estimate for the norm of wavelet localization operators	11:30 - 11:55
11:55 - 12:05	Break		11:55 - 12:05
	Viazovska		
12:05 - 13:05	TBA		12:05 - 13:05

Tuesday		Wednesday	
Agora	Quantitative Estimates for the Unconditional Constant of Wavelet bases on Function Spaces	Abdeljawad	Neural Networks in Local Coordinates
	Arai, Yatabe	Balušik, Rajmic, Mokry	Audio inpainting in time-frequency domain with phase-aware prior
Acceleration of Optimization-based Structured Sparse Time-Frequency Analysis by ADMM		Casey	
Collins, Haddock, Headley, Wang			Deinterleaving Periodic Processes
Faulhuber	Quantile Multiplicative Updates for Corruption-Robust Nonnegative Matrix Factorization	Chen, Correa, Wolf, Moon	
	Operator-isometry pairs and Zak transform methods for the study of Gabor systems		Data Visualization using Functional Data Analysis
Gentile, Murphy		Doerfler, Ehler, Gröchenig, Klotz	Approximation of the short-time Fourier transform
Regularized 2-Wasserstein Barycenters on Discrete Metric Spaces		Hauschka, Balazs, Köhldorfer	
Haider, Perfler, Balazs, Hollomey, Holighaus			Details on the distribution co-orbit space H_w^∞ .
ISAC: An Invertible and Stable Auditory Filter Bank with Customizable Kernels for ML Integration		Lacunza, Sing-Long	
Kamer, Ehler, López-Gómez			Translation-invariant extrapolation in frequency using adaptive multipliers
Asymptotically optimal design curves on the Grassmann manifold		Malagnoux, Kowalski	
Köhldorfer, Balazs	On the inverse-closedness of operator-valued matrices with polynomial off-diagonal decay		Convolutional Sparse Decomposition in Inverse Problems: A Sensor Space Approach
Königs, Bockelmann, Dekorsy	Effectiveness of Time-Warping in Signal Reconstruction from Nonuniformly Distributed Level-Crossing Samples	Matsumoto, Yatabe	Determined Blind Source Separation Using Metric Projection and Proximity Operator of Log-Det Function Under Projection-back Constraint
	Li, Michelle, Han, Zhuang	Peng, Murphy	
Wavelets on Intervals for Image Denoising			Optimal Transport as a Metric for Measuring Segregation
Pourya, Nogarotto, Unser		Rhodes, Rustad, Nielsen	
Comparison of 2D Regular Lattices for the CPWL Approximation of Functions			Enabling Out-of-Sample Extension in Semi-Supervised Manifold Alignment through Twin Autoencoders
Raj		Riley, Okoudjou	
Gabor frames generated by random-periodic time-frequency shifts			On the $(5,3)$ -Grassmannian and the p-Frame Potentials
Sechet, Kowalski, Mokhtari, Torresani		Sen, Sastry	Learned Over-Parametrized Gradient Descent Method for Non-Negative Least Squares Problem
Wang, Zhao	Revisiting CHAMPAGNE: Sparse Bayesian Learning as Reweighted Sparse Coding	Shamsi	
	Compressive Covariance Sketching: Efficient Rank-1 Sampling and Optimal Recovery		Sparse Mask Retrieval for Distributed Estimation in Diffusion LMS
Warion, Torresani		Speckbacher	
Stability estimates for adaptive focused time-frequency transforms			How large are the gaps in phase space?
Yan, Zhu, Ji, Gan, Liu		Zimmermann, Holighaus, Klotz	
Parameter Selection in Complex-Valued Two-Channel Modulo ADC Sampling System			Discretization of Continuous Frames by Quasi-Monte Carlo Methods
		Ayush Bhandari (Demo: Unlimited Sensing)	