Schedule

Mon, Jul 28	**Session**
08:00–17:30	Conference Check-In (HH Lobby)
08:45–09:00	Opening Ceremony (HH Auditorium)
09:00–10:00	Plenary Talk by Rohan Sawhney, Nvidia Corporation, Monte Carlo Methods in Computer Graphics (HH Auditorium)
10:00–10:30	Coffee Break (HH Lobby)
10:30–12:30	Stochastic Computation and Complexity, Part I (HH Auditorium)
10:30–12:30	Domain Uncertainty Quantification (HH Ballroom)
10:30–12:30	Nested expectations: models and estimators, Part I (HH 002)
10:30–12:30	Hardware or Software for (Quasi-)Monte Carlo Algorithms, Part I (WH Auditorium)
10:30–12:30	Technical Session - Markov Chain Monte Carlo (WH 115)
12:30–14:00	Lunch Break (MTCC Commons)
14:00–15:00	Plenary Talk by Christiane Lemieux, U of Waterloo, Golden ratio nets and sequences (HH Auditorium)
15:00–15:30	Coffee Break (HH Lobby)
15:30–17:30	Stochastic Computation and Complexity, Part II (HH Auditorium)
15:30–17:30	Recent advances in optimization under uncertainty (HH Ballroom)
15:30–17:30	Computational Methods for Low-discrepancy Sampling and Applications (HH 002)
15:30–17:30	Technical Session - Quasi-Monte Carlo, Part I (WH Auditorium)
15:30–17:30	Technical Session - PDEs and SDEs (WH 115)
17:30–19:30	Welcome Reception (HH Lobby)

Tue, Jul 29	**Session**
08:30–17:30	Registration Desk Open (HH Lobby)
09:00–10:00	Plenary Talk by Peter Glynn, Stanford U, Combining Simulation and Linear Algebra: COSIMLA (HH Auditorium)
10:00–10:30	Coffee Break (HH Lobby)
10:30–12:30	Stochastic Computation and Complexity, Part III (HH Auditorium)
10:30–12:30	Next-generation optimal experimental design: theory, scalability, and real world impact: Part I (HH Ballroom)
10:30–12:30	Heavy-tailed Sampling (HH 002)
10:30–12:30	Frontiers in (Quasi-)Monte Carlo and Markov Chain Monte Carlo Methods, Part I (WH Auditorium)
10:30–12:30	Technical Session - Bayesian Methods (WH 115)
12:30–14:00	Lunch Break (On your own)
14:00–15:00	Plenary Talk by Roshan Joseph, Georgia Institute of Technology, Sensitivity and Screening: From Monte Carlo to Experimental Design (HH Auditorium)
15:00–15:30	Coffee Break (HH Lobby)
15:30–17:30	Stochastic Computation and Complexity, Part IV (HH Auditorium)
15:30–17:30	Next-generation optimal experimental design: theory, scalability, and real world impact: Part II (HH Ballroom)
15:30–17:30	Advances in Rare Events Simulation (HH 002)
15:30–17:30	Frontiers in (Quasi-)Monte Carlo and Markov Chain Monte Carlo Methods, Part II (WH Auditorium)
15:30–17:30	Technical Session - Quasi-Monte Carlo, Part II (WH 115)
18:00–20:00	Chicago White Sox vs. Philadelphia Phillies (must purchase tickets beforehand) (Meet in HH Lobby)

Wed, Jul 30	Session
08:30–16:30	Registration Desk Open (HH Lobby)
09:00–10:00	Plenary Talk by Veronika Ročková, U of Chicago, AI-Powered Bayesian Inference (HH Auditorium)
10:00–10:30	Coffee Break (HH Lobby)
10:30–12:30	Stochastic Computation and Complexity, Part V (HH Auditorium)
10:30–12:30	Statistical Design of Experiments (HH Ballroom)
10:30–12:30	Advances in Adaptive Hamiltonian Monte Carlo (HH 002)
10:30–12:30	Technical Session - Simulation (WH Auditorium)
10:30–12:30	Technical Session - Sampling (WH 115)
12:30–14:00	Lunch Break (On your own)
14:00–16:00	Stochastic Optimization (HH Auditorium)
14:00–16:00	Recent Progress on Algorithmic Discrepancy Theory and Applications (HH Ballroom)
14:00–16:00	Monte Carlo Applications in High-performance Computing, Computer Graphics, and Computational Science (HH 002)
14:00–16:00	Technical Session - Statistics (WH Auditorium)
16:00–16:30	Coffee Break (HH Lobby)
18:00–20:30	Conference Banquet (Bridgeport Art Center, 1200 W 35th Street)

Thu, Jul 31	Session
08:30–17:30	Registration Desk Open (HH Lobby)
09:00–10:00	Plenary Talk by Uros Seljak, UC Berkeley, Gradient-Based MCMC Sampling: Methods and Optimization Strategies (HH Auditorium)
10:00–10:30	Coffee Break (HH Lobby)
10:30–12:30	QMC and Applications Part I (HH Auditorium)
10:30–12:30	Analysis of Langevin and Related Sampling Algorithms, Part I (HH Ballroom)
10:30–12:30	Nested expectations: models and estimators, Part II (HH 002)
10:30–12:30	Technical Session - Finance (WH Auditorium)
10:30–12:30	Technical Session - ML & Optimization (WH 115)
12:30–14:00	Lunch Break (On your own)
14:00–15:00	Plenary Talk by Nicolas Chopin, Institut Polytechnique de Paris, Saddlepoint Monte Carlo and its application to exact ecological inference (HH Auditorium)
15:00–15:30	Coffee Break (HH Lobby)
15:30–17:30	QMC and Applications Part II (HH Auditorium)
15:30–17:30	Analysis of Langevin and Related Sampling Algorithms, Part II (HH Ballroom)
15:30–17:30	Recent Advances in Stochastic Gradient Descent (HH 002)
15:30–17:30	Technical Session - Sampling (WH Auditorium)
15:30–17:30	Technical Session - SDEs (WH 115)
18:30–20:30	Steering Committee Meeting (by invitation) (Mikami Izakaya & Ramen, 1400 S Michigan Ave)
19:00–21:00	Early Career Dinner (Time Out Market, 916 W Fulton Market)

Fri, Aug 1	Session
08:30–12:15	Registration Desk Open (HH Lobby)
09:00–11:00	Forward and Inverse Problems for Stochastic Reaction Networks (HH Auditorium)
09:00–11:00	Hardware or Software for (Quasi-)Monte Carlo Algorithms, Part II (HH Ballroom)
09:00–11:00	Technical Session - Simulation (HH 002)
09:00–11:00	Technical Session - Sampling and Markov Chain Monte Carlo (WH Auditorium)
11:00–11:30	Coffee Break (HH Lobby)
11:30–12:30	Plenary Talk by Michaela Szölgyenyi, U of Klagenfurt, An optimal transport approach to quantifying model uncertainty of SDEs (HH Auditorium)
12:30–12:40	Closing Ceremony (HH Auditorium)

Mon, Jul 28, 2025 – Morning

08:00–17:30	Conference Check-In, HH Lobby				
08:45–09:00	Opening Ceremony by Fred Hickernell, Nicole Beebe, and Kevin Corlette, HH Auditorium				
09:00–10:00	**Plenary Talk:** ***Rohan Sawhney, Nvidia Corporation, Monte Carlo Methods in Computer Graphics***, p. 43 Chair: *Michael Mascagni*, HH Auditorium				
10:00–10:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** Stochastic Computation and Complexity, Part I, p. 54 Chair: *Stefan Heinrich*	HH Ballroom **Special Session** Domain Uncertainty Quantification, p. 55 Chair: *André-Alexander Zepernick*	HH 002 **Special Session** Nested expectations: models and estimators, Part I, p. 56 Chair: *Arved Bartuska*	WH Auditorium **Special Session** Hardware or Software for (Quasi-)Monte Carlo Algorithms, Part I, p. 57 Chair: *Mike Giles*	WH 115 **Technical Session** Markov Chain Monte Carlo Chair: *Philippe Gagnon*
10:30–11:00	*Andreas Neuenkirch*, A strong order 1.5 boundary-preserving discretization scheme for scalar SDEs defined in a domain, p. 91	*André-Alexander Zepernick*, Domain UQ for stationary and time-dependent PDEs using QMC, p. 94	*Abdul Lateef Haji Ali*, An Adaptive Sampling Algorithm for Level-set Approximation, p. 97	*Pieterjan Robbe*, Multilevel quasi-Monte Carlo without replications, p. 100	*Zhihao Wang*, Stereographic Multi-Try Metropolis Algorithms for Heavy-tailed Sampling, p. 180
11:00–11:30	*Christopher Rauhögger*, An adaptive Milstein-type method for strong approximation of systems of SDEs with a discontinuous drift coefficient, p. 92	*Carlos Jerez-Hanckes*, Domain Uncertainty Quantification for Electromagnetic Wave Scattering via First-Order Sparse Boundary Element Approximation, p. 95	*Vinh Hoang*, Posterior-Free A-Optimal Bayesian Design of Experiments via Conditional Expectation, p. 98	*Irina-Beatrice Haas*, A nested Multilevel Monte Carlo framework for efficient simulations on FPGAs, p. 100	*Ruben Seyer*, Creating rejection-free samplers by rebalancing skew-balanced jump processes, p. 181
11:30–12:00	*Verena Schwarz*, Strong order 1 adaptive approximation of jump-diffusion SDEs with discontinuous drift, p. 93	*Jürgen Dölz*, Quantifying uncertainty in spectral clusterings: expectations for perturbed and incomplete data, p. 96	*Vesa Kaarnioja*, QMC for Bayesian optimal experimental design with application to inverse problems governed by PDEs, p. 99	*Mike Giles*, CUDA implementation of MLMC on NVIDIA GPUs, p. 101	*Philippe Gagnon*, Theoretical guarantees for lifted samplers, p. 182
12:00–12:30	*Toni Karvonen*, Approximation in Hilbert spaces of the Gaussian and related analytic kernels, p. 93	*Harri Hakula*, Model Problems for PDEs on Uncertain Domains, p. 97		*Chung Ming Loi*, Scalable and User-friendly QMC Sampling with UMBridge, p. 102	

Mon, Jul 28, 2025 – Afternoon

12:30–14:00	Lunch Break, MTCC Commons				
14:00–15:00	**Plenary Talk:** ***Christiane Lemieux, U of Waterloo, Golden ratio nets and sequences***, p. 44 Chair: *Nathan Kirk*, HH Auditorium				
15:00–15:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** Stochastic Computation and Complexity, Part II, p. 59 Chair: *Larisa Yaroslavtseva*	HH Ballroom **Special Session** Recent advances in optimization under uncertainty, p. 60 Chair: *Phillip A. Guth*	HH 002 **Special Session** Computational Methods for Low-discrepancy Sampling and Applications, p. 61 Chair: *Nathan Kirk*	WH Auditorium **Technical Session** Quasi-Monte Carlo, Part I Chair: *Peter Kritzer*	WH 115 **Technical Session** PDEs and SDEs Chair: *Håkon Hoel*
15:30–16:00	*Michael Gnewuch*, Optimality of deterministic and randomized QMC-cubatures on several scales of function spaces, p. 103	*Tapio Helin*, Stability of Expected Utility in Bayesian Optimal Experimental Design, p. 106	*François Clément*, Searching Permutations for Constructing Low-Discrepancy Point Sets and Investigating the Kritzinger Sequence, p. 109	*Christian Weiss*, Halton Sequences, Scrambling and the Inverse Star-Discrepancy, p. 192	*Leon Wilkosz*, Forward Propagation of Low Discrepancy Through McKean–Vlasov Dynamics: From QMC to MLQMC, p. 211
16:00–16:30	*Kateryna Pozharska*, Optimal designs for function discretization and construction of tight frames, p. 104	*Karina Koval*, Subspace accelerated measure transport methods for fast and scalable sequential experimental design, p. 107	*Nathan Kirk*, Minimizing the Stein Discrepancy, p. 110	*Sifan Liu*, Transport Quasi-Monte Carlo, p. 192	*Miguel Alvarez*, A New Approach for Unbiased Estimation of Parameters of Partially Observed Diffusions, p. 212
16:30–17:00	*Leszek Plaskota*, Complexity of approximating piecewise smooth functions in the presence of deterministic or random noise, p. 105	*Johannes Milz*, Randomized quasi-Monte Carlo methods for risk-averse stochastic optimization, p. 108	*Makram Chahine*, Improving Efficiency of Sampling-based Motion Planning via Message-Passing Monte Carlo, p. 111	*Ambrose Emmett-Iwaniw*, Using Normalizing Flows for Efficient Quasi-Random Sampling for Copulas, p. 193	*Håkon Hoel*, High-order adaptive methods for exit times of diffusion processes and reflected diffusions, p. 212
17:00–17:30	*Larysa Matiukha*, The Quality of Lattice Sequences, p. 105	*Arved Bartuska*, Efficient expected information gain estimators based on the randomized quasi-Monte Carlo method, p. 109	*Gregory Seljak*, An Empirical Evaluation of Robust Estimators for RQMC, p. 112	*Claude Hall*, Optimization of Kronecker Sequences, p. 194	*Thomas Cass*, Generative Modelling of Levy Area for High-Order SDE Simulation, p. 213
17:30–19:30	Welcome Reception, HH Lobby				

Tue, Jul 29, 2025 – Morning

08:30–17:30	Registration Desk Open, HH Lobby				
09:00–10:00	**Plenary Talk:** ***Peter Glynn, Stanford U, Combining Simulation and Linear Algebra: COSIMLA***, p. 45 Chair: *Chang-Han Rhee*, HH Auditorium				
10:00–10:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** Stochastic Computation and Complexity, Part III, p. 63 Chair: *Leszek Plaskota*	HH Ballroom **Special Session** Next-generation optimal experimental design: theory, scalability, and real world impact: Part I, p. 64 Chair: *Alen Alexanderian*	HH 002 **Special Session** Heavy-tailed Sampling, p. 66 Chair: *Sebastiano Grazzi*	WH Auditorium **Special Session** Frontiers in (Quasi-)Monte Carlo and Markov Chain Monte Carlo Methods, Part I, p. 68 Chair: *Sou-Cheng Choi*	WH 115 **Technical Session** Bayesian Methods Chair: *Hamza Ruzayqat*
10:30–11:00	*Jean-François Chassagneux*, Computing the stationary measure of McKean-Vlasov SDEs, p. 113	*Xun Huan*, Optimal Pilot Sampling for Multi-fidelity Monte Carlo Methods, p. 115	*Sebastiano Grazzi*, Parallel computations for Metropolis Markov chains based on Picard maps, p. 118	*Jonathan Weare*, Functional estimation of the marginal likelihood, p. 121	*Lorenzo Nagar*, Optimizing Generalized Hamiltonian Monte Carlo for Bayesian Inference applications, p. 183
11:00–11:30	*Noufel Frikha*, On the convergence of the Euler-Maruyama scheme for McKean-Vlasov SDEs, p. 114	*Adrien Corenflos*, A recursive Monte Carlo approach to optimal Bayesian experimental design, p. 116	*Federica Milinanni*, A large deviation principle for Metropolis-Hastings sampling, p. 119	*Nikhil Bansal*, Randomized QMC Methods via Combinatorial Discrepancy, p. 122	*Hamza Ruzayqat*, Bayesian Anomaly Detection in Variable-Order and Variable-Diffusivity Fractional Mediums, p. 185
11:30–12:00	*Sotirios Sabanis*, Wasserstein Convergence of Score-based Generative Models under Semiconvexity and Discontinuous Gradients, p. 114	*Ayoub Belhadji*, Weighted quantization using MMD: From mean field to mean shift via gradient flows, p. 117	*Xingyu Wang*, Sharp Characterization and Control of Global Dynamics of SGDs with Heavy Tails, p. 120	*Michael Mascagni*, The Walk on Spheres Monte Carlo Algorithm for Solving Partial Differential Equations, p. 123	*Arghya Datta*, Theoretical Guarantees of Mean Field Variational Inference for Bayesian Principal Component Analysis, p. 186
12:00–12:30				*Hwanwoo Kim*, Enhancing Gaussian Process Surrogates for Optimization and Posterior Approximation via Random Exploration, p. 124	*Jimmy Lederman*, Bayesian Analysis of Latent Underdispersion Using Discrete Order Statistics, p. 187

Tue, Jul 29, 2025 – Afternoon

12:30–14:00	Lunch Break, On your own				
14:00–15:00	**Plenary Talk:** ***Roshan Joseph, Georgia Institute of Technology, Sensitivity and Screening: From Monte Carlo to Experimental Design***, p. 46 Chair: *Simon Mak*, HH Auditorium				
15:00–15:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** Stochastic Computation and Complexity, Part IV, p. 69 Chair: *Thomas Müller-Gronbach*	HH Ballroom **Special Session** Next-generation optimal experimental design: theory, scalability, and real world impact: Part II, p. 70 Chair: *Xun Huan*	HH 002 **Special Session** Advances in Rare Events Simulation, p. 72 Chair: *Shyam Mohan Subbiah Pillai*	WH Auditorium **Special Session** Frontiers in (Quasi-)Monte Carlo and Markov Chain Monte Carlo Methods, Part II, p. 73 Chair: *Yuhan Ding*	WH 115 **Technical Session** Quasi-Monte Carlo, Part II Chair: *Christian Weiss*
15:30–16:00	*Larisa Yaroslavtseva*, Optimal strong approximation of SDEs with Hölder continuous drift coefficient, p. 124	*Alen Alexanderian*, Goal-Oriented Sensor Placement for Infinite-Dimensional Bayesian Inverse Problems, p. 127	*Nicola Branchini*, Revisiting self-normalized importance sampling: new methods and diagnostics, p. 130	*Takashi Goda*, Quasi-uniform quasi-Monte Carlo digital nets, p. 133	*Peter Kritzer*, Approximation using median lattice algorithms, p. 195
16:00–16:30	*Gunther Leobacher*, Tractability of L_2-approximation and integration in weighted Hermite spaces of finite smoothness, p. 125	*Jacopo Iollo*, Diffusion-Based Bayesian Experimental Design: Advancing BED for Practical Applications, p. 128	*Bruno Tuffin*, Asymptotic robustness of smooth functions of rare-event estimators, p. 131	*Ziang Niu*, WITHDRAWN—Boosting the inference for generative models by (Quasi-)Monte Carlo resampling, p. 134	*Yang Liu*, Convergence Rates of Randomized Quasi-Monte Carlo Methods under Various Regularity Conditions, p. 195
16:30–17:00	*Alexander Steinicke*, Malliavin differentiation of Lipschitz SDEs and BSDEs and an Application to Quadratic Forward-Backward SDEs, p. 126	*Tommie Catanach*, Robust Bayesian Optimal Experimental Design under Model Misspecification, p. 129	*Eya Ben Amar*, Importance Sampling Methods with Stochastic Differential Equations for the Estimation of the Right Tail of the CCDF of the Fade Duration, p. 132	*Chenyang Zhong*, A hit-and-run approach for sampling and analyzing ranking models, p. 135	*Jakob Dilen*, Use of rank-1 lattices in the Fourier neural operator, p. 196
17:00–17:30	*Fred J. Hickernell*, A Unified Treatment of Tractability for Approximation Problems Defined on Hilbert Spaces, p. 126		*Shyam Mohan Subbiah Pillai*, Estimating rare event probabilities associated with McKean–Vlasov SDEs, p. 132	*Di Yu*, Interior-Point Frank-Wolfe (IPFW) for Linearly Constrained Functional Optimization Over Probability Spaces, p. 136	*Aadit Jain*, Investigating the Optimum RQMC Batch Size for Betting and Empirical Bernstein Confidence Intervals, p. 197
18:00–20:00	Chicago White Sox vs. Philadelphia Phillies (must purchase tickets beforehand), Meet in HH Lobby				

Wed, Jul 30, 2025 – Morning

08:30–16:30	Registration Desk Open, HH Lobby				
09:00–10:00	**Plenary Talk:** ***Veronika Ročková, U of Chicago, AI-Powered Bayesian Inference***, p. 47 Chair: *Art B. Owen*, HH Auditorium				
10:00–10:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** Stochastic Computation and Complexity, Part V, p. 74 Chair: *Andreas Neuenkirch*	HH Ballroom **Special Session** Statistical Design of Experiments, p. 75 Chair: *Simon Mak*	HH 002 **Special Session** Advances in Adaptive Hamiltonian Monte Carlo, p. 76 Chair: *Art Owen*	WH Auditorium **Technical Session** Simulation Chair: *Toon Ingelaere*	WH 115 **Technical Session** Sampling Chair: *Nicola Branchini*
10:30–11:00	*Stefan Heinrich*, On the quantum complexity of parametric integration in Sobolev spaces, p. 137	*Simon Mak*, Respecting the boundaries: Space-filling designs for surrogate modeling with boundary information, p. 139	*Bob Carpenter*, GIST: Gibbs self-tuning for locally adapting Hamiltonian Monte Carlo, p. 143	*Philippe Blondeel*, Combining quasi-Monte Carlo with Stochastic Optimal Control for Trajectory Optimization of Autonomous Vehicles in Mine Counter Measure Simulations, p. 216	*Joonha Park*, Sampling from high-dimensional, multimodal distributions using automatically tuned, tempered Hamiltonian Monte Carlo, p. 198
11:00–11:30	*Bernd Käßemodel*, Quantum Integration in Tensor Product Besov Spaces, p. 138	*Andrews Boahen*, Active Learning for Nonlinear Calibration, p. 140	*Nawaf Bou-Rabee*, Acceleration of the No-U-Turn Sampler, p. 144	*Rino Persiani*, A Monte Carlo Approach to Designing a Novel Sample Holder for Enhanced UV-Vis Spectroscopy, p. 217	*Arne Bouillon*, Localized consensus-based sampling for non-Gaussian distributions, p. 199
11:30–12:00	*Nikolaos Makras*, Taming the Interacting Particle Langevin Algorithm – The Superlinear Case, p. 138	*Qian Xiao*, Optimal design of experiments with quantitative-sequence factors, p. 141	*Chirag Modi*, ATLAS: Adapting Trajectory Lengths and Step-Size for Hamiltonian Monte Carlo, p. 145	*Prasanth Shyamsundar*, ARCANE Reweighting: A technique to tackle the sign problem in the simulation of collider events in high-energy physics, p. 218	
12:00–12:30	*Iosif Lytras*, Sampling with Langevin Dynamics from non-smooth and non-logconcave potentials., p. 139	*Chaofan Huang*, Factor Importance Ranking and Selection using Total Indices, p. 142	*Trevor Campbell*, AutoStep: Locally adaptive involutive MCMC, p. 146	*Nicole Aretz*, Multifidelity and Surrogate Modeling Approaches for Uncertainty Quantification in Ice Sheet Simulations, p. 219	

Wed, Jul 30, 2025 – Afternoon

12:30–14:00	Lunch Break, On your own				
	HH Auditorium **Special Session** Stochastic Optimization, p. 78 Chair: *Shane Henderson*	HH Ballroom **Special Session** Recent Progress on Algorithmic Discrepancy Theory and Applications, p. 79 Chair: *Haotian Jiang*	HH 002 **Special Session** Monte Carlo Applications in High-performance Computing, Computer Graphics, and Computational Science, p. 80 Chair: *Michael Mascagni*	WH Auditorium **Technical Session** Statistics Chair: *Yiming Xu*	
14:00–14:30	*Raghu Bollapragada*, Monte Carlo Based Adaptive Sampling Approaches for Stochastic Optimization, p. 147	*Haotian Jiang*, Algorithmic Discrepancy Theory: An Overview, p. 149	*Arash Fahim*, Gaining efficiency in Monte Carlo policy gradient methods for stochastic optimal control, p. 152	*Kazeem Adeleke*, Empirical Statistical Comparative Analysis of SNP Heritability Estimators and Gradient Boosting Machines (GBM) Using Genetic Data from the UK Biobank, p. 220	
14:30–15:00	*Shane Henderson*, A New Convergence Analysis of Two Stochastic Frank-Wolfe Algorithms, p. 148	*Peng Zhang*, Improving the Design of Randomized Experiments via Discrepancy Theory, p. 150	*Sharanya Jayaraman*, Examining the Fault Tolerance of High-Performance Monte Carlo Applications through Simulation, p. 153	*Carles Domingo-Enrich*, Cheap permutation testing, p. 221	
15:00–15:30	*Akshita Gupta*, Stochastic Gradient with Testing Functionals, p. 149	*Aleksandar Nikolov*, Online Factorization for Online Discrepancy Minimization, p. 151	*Rohan Sawhney*, Building Monte Carlo “Renderers” for Physics, p. 154	*Christopher Draper*, Moving PCG beyond LCGs, p. 222	
15:30–16:00			*Silei Song*, WoS-NN: Collaborating Walk-on-Spheres with Machine Learning to Solve Elliptic PDEs, p. 155	*Yiming Xu*, Hybrid least squares for learning functions from highly noisy data, p. 222	
16:00–16:30	Coffee Break, HH Lobby				
18:00–20:30	Conference Banquet, Bridgeport Art Center, 1200 W 35th Street				

Thu, Jul 31, 2025 – Morning

08:30–17:30	Registration Desk Open, HH Lobby				
09:00–10:00	**Plenary Talk:** ***Uros Seljak, UC Berkeley, Gradient-Based MCMC Sampling: Methods and Optimization Strategies***, p. 48 Chair: *Nicolas Chopin*, HH Auditorium				
10:00–10:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** QMC and Applications Part I, p. 81 Chair: *Michael Gnewuch*	HH Ballroom **Special Session** Analysis of Langevin and Related Sampling Algorithms, Part I, p. 82 Chair: *Xiaoou Cheng*	HH 002 **Special Session** Nested expectations: models and estimators, Part II, p. 83 Chair: *Abdul-Lateef Haji-Ali*	WH Auditorium **Technical Session** Finance Chair: *Aleksei Sorokin*	WH 115 **Technical Session** ML & Optimization Chair: *Frédéric Blondeel*
10:30–11:00	*Felix Bartel*, Exact discretization, tight frames and recovery via D-optimal designs, p. 156	*Krishnakumar Balasubramanian*, Finite-Particle Convergence Rates for Stein Variational Gradient Descent, p. 159	*Matteo Raviola*, Stochastic gradient with least-squares control variates, p. 162	*Vincent Zhang*, Characterizing Efficacy of Geometric Brownian Motion Expectation-based Simulations on Low-Volatility American Common Stocks, p. 203	*Frédéric Blondeel*, Learning cooling strategies in simulated annealing through binary interactions, p. 214
11:00–11:30	*Mou Cai*, L2-approximation: using randomized lattice algorithms and QMC hyperinterpolation, p. 157	*Lihan Wang*, Convergence rates of kinetic Langevin dynamics with weakly confining potentials, p. 160	*Philipp Guth*, A one-shot method for Bayesian optimal experimental design, p. 162	*Hao Quan*, Efficient Pricing for Variable Annuity via Simulation, p. 204	*Du Ouyang*, Accuracy of Discretely Sampled Stochastic Policies in Continuous-Time Reinforcement Learning, p. 215
11:30–12:00	*Zhijian He*, High-dimensional density estimation on unbounded domain, p. 158	*Xiaoou Cheng*, Delocalization of Bias in Unadjusted Hamiltonian Monte Carlo, p. 161	*Sara Pérez-Vieites*, Langevin-based strategies for nested particle filters, p. 163		*Yiqing Zhou*, Minimizing Functions with Sparse Samples: A Fast Interpolation Approach, p. 216
12:00–12:30	*Frances Y. Kuo*, Application of QMC to Oncology, p. 158				

Thu, Jul 31, 2025 – Afternoon

12:30–14:00	Lunch Break, On your own				
14:00–15:00	**Plenary Talk:** ***Nicolas Chopin, Institut Polytechnique de Paris, Saddlepoint Monte Carlo and its application to exact ecological inference***, p. 50 Chair: *Bruno Tuffin*, HH Auditorium				
15:00–15:30	Coffee Break, HH Lobby				
	HH Auditorium **Special Session** QMC and Applications Part II, p. 84 Chair: *Takashi Goda*	HH Ballroom **Special Session** Analysis of Langevin and Related Sampling Algorithms, Part II, p. 85 Chair: *Yifan Chen*	HH 002 **Special Session** Recent Advances in Stochastic Gradient Descent, p. 86 Chair: *Jing Dong*	WH Auditorium **Technical Session** Sampling Chair: *Joonha Park*	WH 115 **Technical Session** SDEs Chair: *Fabio Zoccolan*
15:30–16:00	*Dirk Nuyens*, Approximation of multivariate periodic functions, p. 164	*Molei Tao*, Langevin-Based Sampling under Nonconvex Constraints, p. 166	*Jose Blanchet*, Inference for Stochastic Gradient Descent with Infinite Variance, p. 169	*Josephine Westermann*, Polynomial approximation for efficient transport-based sampling, p. 199	*Fabio Zoccolan*, Dynamical Low-Rank Approximation for SDEs: an interacting particle-system ROM, p. 208
16:00–16:30	*Art Owen*, Randomized QMC with one categorical variable, p. 164	*Yifan Chen*, Convergence of Unadjusted Langevin in High Dimensions: Delocalization of Bias, p. 167	*Chang-Han Rhee*, Exit-Time Analysis of Stochastic Gradient Descent via Kesten's Recursion, p. 170	*Soumyadip Ghosh*, Fast Approximate Matrix Inversion via MCMC for Linear System Solvers, p. 200	*Adrien Richou*, A probabilistic Numerical method for semi-linear elliptic Partial Differential Equations, p. 209
16:30–17:00	*Zexin Pan*, QMC confidence intervals using quantiles of randomized nets, p. 165	*Fuzhong Zhou*, Entropy methods for the delocalization of bias in Langevin Monte Carlo, p. 168	*Jing Dong*, Stochastic Gradient Descent with Adaptive Data, p. 170	*Ally Kwan and Lijia Lin*, Investigating general $L2$ discrepancies with Message-Passing Monte Carlo, p. 201	*Anke Wiese*, A Chen-Fliess series for stochastic differential equations driven by Lévy processes, p. 209
17:00–17:30	*Kosuke Suzuki*, Quasi-uniform quasi-Monte Carlo lattice point sets, p. 166	*Siddharth Mitra*, Convergence of Φ-Divergence and Φ-Mutual Information Along Langevin Markov Chains, p. 168		*Jimmy Nguyen and Anders Pride*, Discrepancy calculation and generating vector searches for Kronecker and extensible lattice sequences, p. 202	*Riccardo Saporiti*, Comparing Probabilistic Load Forecasters: Stochastic Differential Equations and Deep Learning, p. 210
18:30–20:30	Steering Committee Meeting (by invitation), Mikami Izakaya & Ramen, 1400 S Michigan Ave				
19:00–21:00	Early Career Dinner, Time Out Market, 916 W Fulton Market				

Fri, Aug 1, 2025

08:30–12:15	Registration Desk Open, HH Lobby				
	HH Auditorium **Special Session** Forward and Inverse Problems for Stochastic Reaction Networks, p. 87 Chair: *Sophia Münker*	HH Ballroom **Special Session** Hardware or Software for (Quasi-)Monte Carlo Algorithms, Part II, p. 88 Chair: *Pieterjan Robbe*	HH 002 **Technical Session** Simulation Chair: *Nicole Aretz*	WH Auditorium **Technical Session** Sampling and Markov Chain Monte Carlo Chair: *Soumyadip Ghosh*	
09:00–09:30	*Zhou Fang*, Fixed-budget simulation method for growing cell populations, p. 171	*Niklas Baumgarten*, A High-performance Multi-level Monte Carlo Software for Full Field Estimates and Applications in Optimal Control, p. 175	*Yashveer Kumar*, Monte Carlo simulation approach to solve distributed order fractional mathematical model, p. 188	*Daniel Yukimura*, Quantitative results on sampling from quasi-stationary distributions, p. 205	
09:30–10:00	*Sophia Münker*, Dimensionality Reduction for Efficient Rare Event Estimation, p. 172	*Aleksei Sorokin*, Fast Gaussian Processes, p. 176	*Reuben Cohn-Gordon*, Gradient-based MCMC in high dimensions, p. 189	*Toon Ingelaere*, Multilevel simulation of ensemble Kalman methods: interactions across levels, p. 206	
10:00–10:30	*Maksim Chupin*, Filtered Markovian Projection: Dimensionality Reduction in Filtering for Stochastic Reaction Networks, p. 173	*Johannes Krotz*, Hybrid Monte Carlo methods for kinetic transport, p. 177	*Serena Fattori*, Benchmarking the Geant4-DNA 'UHDR' Example for Monte Carlo Simulation of pH Effects on Radiolytic Species Yields Using a Mesoscopic Approach, p. 190	*Annabelle Carrell*, Low-Rank Thinning, p. 207	
10:30–11:00	*Muruhan Rathinam*, State and parameter inference in stochastic reaction networks, p. 174	*Joseph Farmer*, Flow-Based Monte Carlo Transport Simulation, p. 178	*Chi-Ok Hwang*, First-passage-based Last-passage Algorithm for Charge Density on a Conducting Surface, p. 191		
11:00–11:30	Coffee Break, HH Lobby				
11:30–12:30	**Plenary Talk:** ***Michaela Szölgyenyi, U of Klagenfurt, An optimal transport approach to quantifying model uncertainty of SDEs***, p. 52 Chair: *Gunther Leobacher*, HH Auditorium				
12:30–12:40	Closing Ceremony by Fred Hickernell, HH Auditorium				