

# Workshop and Tutorial Sessions (July 09, 2022)

	08:30–10:20	10:50–12:40	13:40–15:30	16:00–17:50
Atlantic 1	Genetic improvement: Taking real-world source code and improving it using computational search methods (Haraldsson, Woodward, Brownlee, Winter, Alexander)	Graph-based Genetic Programming (Kalkreuth, Sotto, Vasicek)	Generative Hyper-heuristics (Tauritz, Woodward)	A (Biased) Introduction to Benchmarking (Auger)
Atlantic 2	Graybox Optimization and Next Generation Genetic Algorithms (Whitley)	Evolution of Neural Networks (Miikkulainen)	Benchmarking and analyzing iterative optimization heuristics with IOHprofiler (Doerr, Wang, Vermetten, Bäck, Nobel, Ye)	Automated Algorithm Configuration and Design (López-Ibáñez, of, Stützle, Cáceres)
Atlantic 3	Evolutionary Diversity Optimization for Combinatorial Optimization (Bossek, Neumann, Neumann)	Model-Based Evolutionary Algorithms (Thierens, Bosman)	Lexicase Selection (Helmuth, Cava, Medical) Sequential Experimentation by Evolutionary Algorithms (Shir, Bäck)	Quality-Diversity Optimization (Cully, Mouret, Doncieux)
Salon A	Representations for Evolutionary Algorithms (Rothlauf)	Runtime Analysis of Population-based Evolutionary Algorithms (Lehre, Oliveto)	Bayesian Optimization (Cockuyt, Gonzalez, Branke)	Introductory Mathematical Programming for EC (Shir)
Salons B-C	IAM: Industrial Applications of Metaheuristics	ECXAI: Evolutionary Computation and Explainable AI	ECXAI: Evolutionary Computation and Explainable AI	BENCH: Good Benchmarking Practices for Evolutionary Computation
Salons G-H	EvoSoft: Evolutionary Computation Software Systems	GI: Genetic Improvement	GI: Genetic Improvement	GI: Genetic Improvement
Salon F	BBOB: Black Box Optimization Benchmarking	BBOB: Black Box Optimization Benchmarking	EGML-EC: Enhancing Generative Machine Learning with Evolutionary Computation	SymReg: Symbolic Regression
Caspian	Student	Student	IWLCS: Learning Classifier Systems	
Online 1	Difficulties in Fair Performance Comparison of Multiobjective Evolutionary Algorithms (Ishibuchi, Pang, Shang)	A Gentle Introduction to Theory (For Non-Theoreticians) (Doerr)	Transfer Learning in Evolutionary Spaces (Pillay)	Embedding Knowledge into Optimization Process (Gandomi)
Online 2	Evolutionary Continuous Dynamic Optimization (Yazdani, Yao)	Selection Hyper-heuristics (Kheiri, Keedwell)	Learning Classifier Systems: Cognitive Inspired Machine Learning for eXplainable AI (Siddique, Browne)	Evolutionary Computation for Feature Selection and Feature Construction (XUE, Zhang)



No Sessions



Advanced Tutorials



Introductory Tutorials



Workshops

## Workshop and Tutorial Sessions (July 10, 2022)

	08:30–10:20	10:50–12:40	13:40–15:30	16:00–17:50
Atlantic 1		Introduction to Automated Design of Scheduling Heuristics with Genetic Programming (Durasevic, Jakobovic, Mei, of, Nguyen, Zhang)		
Atlantic 2		Evolutionary Submodular Optimisation (Neumann, Neumann, Qian)	Coevolutionary Computation for Adversarial Deep Learning (Toutouh, of, O'Reilly)	Evolutionary Computation and Machine Learning in Security (Picek, Jakobovic)
Atlantic 3	Statistical Analyses for Multi-objective Stochastic Optimization Algorithms (Eftimov, Korošec)	Benchmarking Multiobjective Optimizers 2.0 (Brockhoff, IP, Tušar)	Constraint-Handling Techniques used with Evolutionary Algorithms (Coello)	Evolutionary Computation and Evolutionary Deep Learning for Image Analysis, Signal Processing and Pattern Recognition (Zhang, Cagnoni)
Salon A	Optimization Challenges at the European Space Agency (Izzo, López-Ibáñez)	EQUM: Evolutionary Optimization in Uncertainty Quantification Models	Competition	Competition
Salons B-C		QD-Benchmarks: Quality Diversity Algorithm Benchmarks	QD-Benchmarks: Quality Diversity Algorithm Benchmarks	SAEOpt: Surrogate-Assisted Evolutionary Optimisation
Salons G-H	QuantOpt: Quantum Optimization	QuantOpt: Quantum Optimization	QuantOpt: Quantum Optimization	SecDef: Genetic and Evolutionary Computation in Defense, Security, and Risk Management
Salon F	AABOH: Analysing algorithmic behaviour of optimisation heuristics	AABOH: Analysing algorithmic behaviour of optimisation heuristics		
Caspian	ECDM: Evolutionary Computation and Decision Making	ECDM: Evolutionary Computation and Decision Making	ECADA: Evolutionary Computation for the Automated Design of Algorithms	EvoRL: Evolutionary Reinforcement Learning
Online 1	Theory and Practice of Population Diversity in Evolutionary Computation (Sudholt, Squillero)		NEWK: Neuroevolution at work	LEOL: Large-Scale Evolutionary Optimization and Learning
Online 2	CMA-ES and Advanced Adaptation Mechanisms (Akimoto, Hansen)		Ant Colony Optimisation for Software Engineers (Gavidia-Calderon, Menendez)	Decomposition Multi-Objective Optimisation Current Developments and Future Opportunities (Li, Zhang)



No Sessions

Specialized Tutorials

Advanced Tutorials

Competition

Introductory Tutorials

Workshops

## Parallel Sessions (Monday, July 11 – Wednesday, July 13)

	Monday July 11 10:30–11:50	Monday July 11 12:50–14:10	Monday July 11 14:40–16:00	Tuesday July 12 12:40–14:00	Tuesday July 12 14:30–15:50	Tuesday July 12 16:20–17:40	Wednesday July 13 09:00–10:20
Atlantic 1	GECH 1★	GP 2★	CS 1★	SBSE 1 - NE 3★	EMO 4★	SBSE 2	NE 4
Atlantic 2	ENUM 1 - Theory 1★	EML 1★	GA 1★	RWA 4	RWA 5★	ECOM 5★	RWA 6
Atlantic 3	NE 1	NE 2	EML 2	EML 3	EML 4	ACO-SI 2	EML 5
Salon A	EMO 1	RWA 1	RWA 3	GECH 2	GECH 3	GECH 4	EMO 5
Salons B-C	GP 1	HOP 1	HOP 2	No Sessions	ENUM 2	HOP 3	HOP 4
Salons G-H	ECiP 1	ECiP 2	EMO 2	EMO 3	CS 2	CS 3	CS 4
Salon F	ECOM 1	Humies	ECOM 2	ECOM 3	ECOM 4	GA 2	GA 3
Caspian	ACO-SI 1	RWA 2	GP 3	GP 4	Theory 2	Theory 3	Funding-related session by Aldeida Aleti



No Sessions



Best Paper  
Sessions



Standard Paper  
Sessions



Humies



HOP



ECiP



Specialized  
Session