

Wednesday July 7

Tutorials and Workshops

Room	8:30-10:20	10:40-12:30	14:00-15:50	16:10-18:00
Salon A	Advanced Representations for Evolutionary Algorithms Franz Rothlauf	Intro Statistical Analysis for Evolutionary Computation: Introduction Mark Wineberg, Steffen Christensen	Advanced Statistical analysis for evolutionary computation: Advanced Techniques Mark Wineberg, Steffen Christensen	Advanced Tuning and Experimental Analysis in EC: What We Still Have Wrong Mike Preuss, Thomas Bartz-Beielstein
Salon B	Black Box Optimization Benchmarking Workshop Anne Auger, Hans-Georg Beyer, Nikolaus Hansen, Steffen Finck, Raymond Ros, Petr Posik p. 31	BBOB continued	BBOB continued	BBOB continued
Salon C	Medical Applications of Genetic and Evolutionary Computation (MedGEC) Workshop Stephen L. Smith, Stefano Cagnoni, Robert Patton p. 36	MedGEC continued	Advanced Evolutionary Computation on GPUs (with NVIDIA presentation) Wolfgang Banzhaf, Pierre Collet, Simon Harding, NVIDIA	Special GPUs (with NVIDIA presentation) continued
Salon D	Advanced Computational Complexity and EC Frank Neumann, Thomas Jansen	Intro Intro to Genetic Algorithms Erik Goodman	Intro Learning Classifier Systems Martin Butz	Intro Probabilistic Model-Building GAS Martin Pelikan
Salon G	Intro Evolution Strategies: Basic Introduction Thomas Bäck	Special No Free Lunch Darrell Whitley	Advanced Constraint Handling Techniques Used with EAs Carlos Coello Coello	Advanced Experimental Optimization by Evolutionary Algorithms Thomas Bäck, Joshua Knowles, Ofer M. Shir
Salon H	Graduate Student Workshop Riccardo Poli p. 36	Graduate Student Workshop continued	Graduate Student Workshop continued	Graduate Student Workshop continued
Salon I	Intro Evolutionary Computation: A Unified View Kenneth De Jong	Special Generative and Developmental Systems Kenneth O. Stanley	Advanced GA Theory Michael D. Vose	Special Genetic and Evolutionary Computer Vision Gustavo Olague, Mengjie Zhang, Stefano Cagnoni
Portland	Late Breaking Abstracts: Genetics Based Machine Learning, p. 38	Advanced Bioinformatics Jason Moore	Evolutionary Computation and Multi-Agent Systems and Simulation 4th Annual (ECoMASS) Workshop William Rand, Rick Riolo p. 41	ECoMASS continued
Salem	Late Breaking Abstracts: Operator Design and Evolutionary Software Frameworks p. 39	Late Breaking Abstracts: Real World Applications p. 40	8th Undergraduate Student Workshop Clare Bates Congdon Frank Moore p. 42	8th Undergraduate Student Workshop continued

Key

Workshop

Tutorial

Breaks: Ballroom Foyer, morning and afternoon

Intro: Introductory level

Advanced: Advanced level

Special: Specialized Techniques and Applications

Thursday July 8
Tutorials and Workshops

Room	8:30-10:20	10:40-12:30	14:00-15:50	16:10-18:00
Salon A	13th International Workshop on Learning Classifier Systems (IWLCS) Jaume Bacardit, William Browne, Jan Drugowitsch p. 43	LCS continued	LCS continued	LCS continued
Salon B	Advanced Foundations of Evolutionary Multi-Objective Optimization Tobias Friedrich, Frank Neumann	Advanced Evolutionary Multi-Objective Optimization Kalyanmoy Deb	Theoretical Aspects of Evolutionary Multiobjective Optimization - Current Status and Future Trends Workshop Dimo Brockhoff, Nicola Beume p. 46	TA of EMO continued
Salon C	Symbolic Regression & Modeling Steven Gustafson, Mark Kotanchek p. 44	SR&M continued	Intro Ant Colony Optimization Manuel Lopez-Ibanez	Special Theory of Randomized Search Heuristics in Combinatorial Optimization Carsten Witt
Salon D	Intro Intro to Genetic Programming John R. Koza	Intro Evolutionary Neural Networks Risto Miikkulainen, Kenneth O. Stanley	Special Real World Data Modeling Mark Kotanchek	Intro Financial Evolutionary Computation Christopher D. Clack
Salon G	Evolutionary Computation Techniques for Constraint Handling Workshop Carlos Artemio Coello Coello, Dara Curran and Thomas Jansen	ECT for CH continued	Experimental Design and Statistical Analysis Workshop Mark Wineberg, Steffen Christensen, Thomas Bartz-Beielstein, Mike Preuss	Statistics Workshop continued
Salon H	Intro Grammatical Evolution Conor Ryan	Advanced GP Theory Riccardo Poli	Special Handling Bloat in GP Sara Silva	Special Fitness landscapes and graphs : multimodaity, ruggedness, and neutrality Leonardo Vanneschi
Salon I	Special Synthetic Biology Natalio Krasnogor	Special Evolving Quantum Computer Algorithms Lee Spector	Entropy, Information and Complexity Workshop Stuart William Card, Yossi Borenstein p. 47	EIC continued
Portland	Special Digital Evolution with Avida Charles Ofria, Benjamin Beckmann, Jeff Clune	Special Billion Bits Kumara Sastry	Optimization by Building and Using Probabilistic Models Workshop (OBUPM-2010) Mark Hauschild, Martin Pelikan p. 47	OBUPM continued
Salem	Late Breaking Abstracts: Swarm Intelligence, Differential Evolution, and Phylogenetics, p. 44	Special Cartesian Genetic Programming Julian Miller, Simon Harding	Special Evolution Strategies and Covariance Matrix Adaptation Anne Auger Nikolaus Hansen	1st GECCO Workshop on Visualization Methods for Genetic and Evolutionary Computation (VizGEC) Jason H. Moore
Salon E		Late Breaking Abstracts: Applications, p. 45		

Opening Reception

Thursday 8 July 18:30 – 21:00

Room: Oregon Ballroom

18:30–21:00 Opening Reception: Free to all registered GECCO attendees.
Hot and cold hors d'oeuvre, wine, beer, and soft drinks will be served.
Remember to **bring your Badge and beverage tickets to the Poster Session.**

Friday July 9
Paper Presentations and Special Sessions

Keynote: Mark A. Bedau

8:30 – 10:10

Topic: Coping with complexity: machine learning optimization of highly synergistic biological and biochemical systems

Room: Oregon Ballroom

Room	10:40 – 12:20	14:00 – 15:40	16:10 – 17:50
Salon A	RWA: Best Paper Nominees, p. 48	GA: Best Paper Nominees, p. 55	GP: Reliability and Robustness, p. 62
Salon B	ACO-SI: Particle Swarm Optimization I, p. 49	Competitions, p. 56	RWA: Business and Food Science, p. 63
Salon C	GA: Coevolution & Niching, p. 50	SBSE: Best Paper Nominees, p. 56	SBSE: Requirements and Design, p. 64
Salon D	HUMIE Presentations, p. 51	ACO-SI: Best Paper Nominees Ant Colony Optimization, p. 57	ACO-SI: Particle Swarm Optimization II, p. 65
Salon G	ALIFE: Evolutionary Robotics, p. 52	ALIFE: Best Paper Nominees, p. 59	EMO: Applications and Algorithms, p. 66
Salon I	Theory: Best Paper Nominees, p. 53	Theory: Landscapes and Convergence, p. 60	Theory: New Search Heuristics, p. 67
Portland	ECP: Ask the Experts: EC questions from the audience (Open panel discussion), p. 54	ECP: Managing an EC project for success, Emerging Technologies, p. 61	GDS: Best Paper Nominees, p. 68
Salon H	Open Room for Attendees		
Salem	Open Room for Attendees		

Key

ACO	Ant Colony Optimization and Swarm Intelligence	GA	Genetic Algorithms
ALIFE	Artificial Life, Evolutionary Robotics, Adaptive Behavior, Evolvable Hardware	GBML	Genetics-Based Machine Learning
BIO	Bioinformatics and Computational Biology	GDS	Generative and Developmental Systems
COM	Combinatorial Optimization and Metaheuristics	GP	Genetic Programming
ECP	Evolutionary Computation in Practice	PES	Parallel Evolutionary Systems
EDA	Estimation of Distribution Algorithms	RWA	Real World Application
EMO	Evolutionary Multiobjective Optimization	SBSE	Search Based Software Engineering
ES/EP	Evolution Strategies and Evolutionary Programming	Theory	Formal Theory

Saturday July 10
Paper Presentations and Special Sessions

Keynote: W. Brian Arthur

8:30 – 10:10

Topic: Combinatorial evolution in technology and an algorithm this suggests

Room: Oregon Ballroom

Room	10:40 – 12:20	14:00 – 15:40	16:10 – 17:30
Salon A	EMO: Best Paper Nominees, p. 70	ESEP: Best Paper Nominees, p. 78	COM: Best Paper Nominees, p. 88
Salon B	EDA: Best Paper Nominees and Multimodal EDAs, p. 71	EDA: Scalability, Efficiency enhancement, and Applications, p. 79	ESEP: Parameter Tuning and Applications, p. 89
Salon C	GA: Parameter Tuning, p. 72	GA: Theory, p. 80	GP: Classification, p. 89
Salon D	RWA: Manufacturing, Scheduling, Timetabling and Robotics, p. 74	RWA: Social Network Analysis and Music, p. 81	GBML: Best Paper Nominees, p. 90
Salon G	GP: Models, Methods and Representations, p. 75	Bio: Best Paper Nominees: Systems, Diseases and Epidemiology, p. 83	Bio: Genes, Sequences and Proteins, p. 91
Salon I		PES: Best Paper Nominees, p. 85	PES: Advanced Topics, p. 92
Portland	GDS: HyperNEAT & Related Algorithms, p. 76	GDS: General, p. 86	
Salem	ECP: EC in Design, p. 77	ECP: EC in Statistics and EA consultancy, p. 87	
Salon H	Open Room for Attendees		

Poster Session and Reception

Saturday 10 July 18:00 – 20:30

Room: Oregon Ballroom

16:30–18:00 Poster presenters may set up their posters.
Please limit your activity to your poster setup and allow the banquet staff to finish setting up for the reception. Thank you for your participation and cooperation.

18:00–20:30 Poster Session and Reception: Posters are on display. Poster authors will be available to discuss their posters beginning at 18:30. Hot and cold hors d'oeuvre, wine, beer, and soft drinks will be served.
*Remember to **bring your Badge and beverage tickets** to the Poster Session.*

Sunday July 11
Paper Presentations and Special Sessions

SIGEVO Meeting and Awards

8:30 – 10:10

SIGEVO Meeting and Awards. All are welcome.

Room: Oregon Ballroom

Room	10:40 – 12:20	14:00 – 15:40
Columbia	GP: Crossover, p. 93	GP: Fitness Evaluation, Feature Selection and Symbiosis, p. 101
Mount Hood	GA: Combinatorial Optimization, p. 94	GA: EC Techniques, p. 102
Meadowlark	COM: Methods and Approaches, p. 95	COM: Applications, p. 103
Douglas Fir	ECP: Getting a Job: What to do and what not to do, p. 96	RWA:Classification and Computing, p. 104
Salmon	EMO: Preferences and Performance based EMO, p. 97	EMO: Algorithms, p. 106
Sunstone	GBML: Multi-Task and Multi-Agent Systems, p. 98	GBML: Classification and Datamining, p. 105
Salon D	RWA:Hardware and Software, p. 99	
Willamette	Open Room for Attendees	

Paper Presentations by Track

ACO/Swarm Intelligence

7/9/2010	Salon B	10:40	ACO-SI: Particle Swarm Optimization I	p. 49
7/9/2010	Salon D	14:00	ACO-SI: Best Paper Nominees Ant Colony Optimization	p. 57
7/9/2010	Salon D	16:10	ACO-SI: Particle Swarm Optimization II	p. 65

Artificial Life/Robotics/Evolvable Hardware

7/9/2010	Salon G	10:40	ALIFE: Evolutionary Robotics	p. 52
7/9/2010	Salon G	14:00	ALIFE: Best Paper Nominees	p. 59

Bioinformatics, Computational, Systems and Synthetic Biology

7/10/2010	Salon G	14:00	Bio: Best Paper Nominees: Systems, Diseases and Epidemiology	p.83
7/10/2010	Salon G	16:10	Bio: Genes, Sequences and Proteins	p. 91

Combinatorial Optimization and Metaheuristics

7/10/2010	Salon A	16:10	COM: Best Paper Nominees	p. 88
7/11/2010	Meadowlark	10:40	COM: Methods and Approaches	p. 95
7/11/2010	Meadowlark	14:00	COM: Applications	p. 103

Estimation of Distribution Algorithms

7/10/2010	Salon B	10:40	EDA: Best Paper Nominees and Multimodal EDAs	p. 71
7/10/2010	Salon B	14:00	EDA: Scalability, Efficiency enhancement, and Applications	p. 79

Evolution Strategies and Evolutionary Programming

7/10/2010	Salon A	14:00	ESEP: Best Paper Nominees	p. 78
7/10/2010	Salon B	16:10	ESEP: Parameter Tuning and Applications	p. 89

Evolutionary Multiobjective Optimization

7/9/2010	Salon G	16:10	EMO: Applications and Algorithms	p. 66
7/10/2010	Salon A	10:40	EMO: Best Paper Nominees	p. 70
7/11/2010	Salmon	10:40	EMO: Preferences and Performance based EMO	p. 97
7/11/2010	Salmon	14:00	EMO: Algorithms	p. 106

Paper Presentations by Track

Generative and Developmental Systems

7/9/2010	Portland	16:10	GDS: Best Paper Nominees	p. 68
7/10/2010	Portland	10:40	GDS: HyperNEAT & Related Algorithms	p. 76
7/10/2010	Portland	14:00	GDS: General	p. 86

Genetic Algorithms

7/9/2010	Salon C	10:40	GA: Coevolution & Niching	p. 50
7/9/2010	Salon A	14:00	GA: Best Paper Nominees	p. 55
7/10/2010	Salon C	10:40	GA: Parameter Tuning	p. 72
7/10/2010	Salon C	14:00	GA: Theory	p. 80
7/11/2010	Mt Hood	10:40	GA: Combinatorial Optimization	p. 94
7/11/2010	Mt Hood	14:00	GA: EC Techniques	p. 102

Genetic Programming

7/9/2010	Salon A	16:10	GP Best Paper Nominees: Reliability and Robustness	p. 62
7/10/2010	Salon G	10:40	GP: Models, Methods and Representations	p. 75
7/10/2010	Salon C	16:10	GP: Classification	p. 89
7/11/2010	Columbia	10:40	GP: Crossover	p. 93
7/11/2010	Columbia	14:00	GP: Fitness Evaluation, Feature Selection and Symbiosis	p. 101

Genetics Based Machine Learning

7/10/2010	Salon D	16:10	GBML: Best Paper Nominees	p. 90
7/11/2010	Sunstone	10:40	GBML: Multi-Task and Multi-Agent Systems	p. 98
7/11/2010	Sunstone	14:00	GBML: Classification and Datamining	p. 105

Parallel Evolutionary Systems

7/10/2010	Salon I	14:00	PES: Best Paper Nominees	p. 85
7/10/2010	Salon I	16:10	PES: Advanced Topics	p. 92

Paper Presentations by Track

Real World Applications

7/9/2010	Salon A	10:40	RWA: Best Paper Nominees	p. 48
7/9/2010	Salon C	16:10	RWA: Business and Food Science	p. 63
7/10/2010	Salon D	10:40	RWA: Manufacturing, Scheduling, Timetabling and Robotics	p. 74
7/10/2010	Salon D	14:00	RWA: Social Network Analysis and Music	p. 81
7/11/2010	Salon D	10:40	RWA: Hardware and Software	p. 99
7/11/2010	Douglas Fir	14:00	RWA: Classification and Computing	p. 104

Search-Based Software Engineering

7/9/2010	Salon C	14:00	SBSE: Best Paper Nominees	p. 56
7/9/2010	Salon C	16:10	SBSE: Requirements and Design	p. 64

Theory

7/9/2010	Salon I	10:40	Theory: Best Paper Nominees	p. 53
7/9/2010	Salon I	14:00	Theory: Landscapes and Convergence	p. 60
7/9/2010	Salon I	16:10	Theory: New Search Heuristics	p. 67

Evolutionary Computation in Practice

7/9/2010	Portland	10:40	ECP: Ask the Experts: EC questions from the audience (Open panel discussion)	p. 54
7/9/2010	Portland	14:00	ECP: Managing an EC project for success, Emerging Technologies	p. 61
7/10/2010	Salem	10:40	ECP: EC in Design	p. 77
7/10/2010	Salem	14:00	ECP: EC in Statistics and EA consultancy	p. 87
7/11/2010	Douglas Fir	10:40	ECP: Getting a Job: What to do and what not to do	p. 96
