

Tutorial Preface

With the field of Genetic and Evolutionary Computation becoming well known by other disciplines, it is vital to educate those seeking to use methodologies from the field in good practice in the design and use of evolutionary algorithms. One of the primary roles of the tutorials is to introduce novices to the field to the many aspects of genetic evolutionary computation.

It is not only other disciplines that may benefit from attending tutorial sessions. Even the most seasoned member of the community will be able to pick up important and interesting pointers and ideas from the various topics among the 35 tutorials available.

To appeal to the large variance in both the level and the areas of experience of the participants that GECCO attracts, we ensure a sufficient number of tutorials are provided in three categories. Introductory tutorials target those who are just getting acquainted with the field, advanced tutorials are ideas for those who have basic experience in EC and want to learn more about a specific area, and specialized tutorials will appeal to both novices and experts that wish to learn about specific topics and application areas.

Introductory Tutorials

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| Genetic Algorithms | Erik Goodman |
| Genetic Programming | John Koza |
| Evolution Strategies | Thomas Bäck |
| A Unified Approach to EC | Kenneth De Jong |
| Probabilistic Model-Building GAs | Martin Pelikan |
| Grammatical Evolution | Conor Ryan, Atif Azad |
| Financial Evolutionary Computation | Christopher D. Clack |
| Learning Classifier Systems | Martin V. Butz |
| Coevolution | Anthony Bucci, Paul Wiegand, Sevan Ficici |

Advanced Tutorials

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| GP Theory | Riccardo Poli |
| No Free Lunch | Darrell Whitley |
| Bioinformatics | Jason Moore |
| Evolutionary Multiobjective Optimization | Eckart Zitzler, Kalyanmoy Deb |
| Representations | Franz Rothlauf |
| Evolutionary Practical Optimization | Kalyanmoy Deb |
| Computational Complexity and EC | Frank Neumann |
| GA Theory | Jonathan Rowe |

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| Experimental Research in EC | Thomas Bartz-Beielstein |
| Coevolution Advanced | Anthony Bucci, Paul Wiegand, Sevan Ficici |
| Constraint Handling Techniques Used with EAs | Carlos Coello Coello |
| Statistics for EC | Mark Wineberg |
| Specialized Tutorials | |
| Symbolic Regression | Maarten Keijzer |
| Quantum Computing | Lee Spector |
| Evolutionary Multiobjective Combinatorial Optimization | Rajeev Kumar |
| Theory of Randomized Search Heuristics in Combinatorial Optimization | Carsten Witt |
| Evolutionary Design | Ian Parmee |
| Evolutionary Computation and Games | Moshe Sipper |
| An Information Perspective on Evolutionary Computation | Yossi Borenstein |
| Evolution Strategies and Related Estimation of Distribution Algorithms | Nikolaus Hansen |
| Cartesian Genetic Programming | Julian F Miller, Simon Harding |
| EA-based Test and Verification of Microprocessors | Giovanni Squillero |
| Genetic and Evolutionary Computer Vision | Stephano Cagnoni |
| Generative and Developmental Systems | Kenneth Stanley |
| Evolving Neural Networks | Risto Mikkulainen, Kenneth O. Stanley |

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GECCO-2008 July 12–16, 2008, Atlanta, Georgia, USA