

# Call for Papers

2011 Genetic and Evolutionary Computation Conference  
Tuesday – Saturday July 12–16, 2011 Dublin, Ireland

Largest Conference in the Field of Genetic and Evolutionary Computation

A recombination of the

20th International Conference on Genetic Algorithms (ICGA) and the  
16th Annual Genetic Programming Conference (GP)

[www.sigevo.org/gecco-2011](http://www.sigevo.org/gecco-2011)



## One Conference – Many Mini-Conferences



### Program Tracks

Three days of presentations of the latest high-quality results in more than 15 separate and independent program tracks specializing in various aspects of genetic and evolutionary computation.

### Free Tutorials and Workshops!

Two days of free tutorials and workshops (included with conference registration) presented by some of the world's foremost experts in topics of interest to genetic and evolutionary computation researchers and practitioners.

### Important Dates

- \* **Submission deadline: January 26, 2011**
- \* Notification of paper acceptance: March 23, 2011
- \* Camera-ready submission: April 18, 2011
- \* Workshop and tutorial proposals submission: November 8, 2010
- \* Notification of workshop and tutorial acceptance: November 29, 2010
- \* GECCO-2011 Conference: July 12-16, 2011

### Review Process

Each paper submitted to GECCO will be rigorously reviewed, in a double-blind review process, meaning that reviewers should not be able to infer the identities of the authors of the papers under review, and, of course, that authors will not know the identities of their reviewers.

Each submitted paper will be evaluated by one of at least 15 separate and independent program committees specializing in various aspects of genetic and evolutionary computation. These committees make their own final decisions on submitted papers for their areas, subject only to conference-wide space limitations and procedures.

Review criteria include significance of the work, technical soundness, novelty, clarity, writing quality, and sufficiency of information to permit replication, if applicable.

### How to Submit a Paper

Meet the submission deadline (January 26, 2011) and submit substantially new work. GECCO allows submissions of material that is substantially similar to a paper being submitted contemporaneously for review in another conference. However, if the submitted paper is accepted by GECCO, the authors agree that substantially the same material will not be published by another conference in the evolutionary computation field. Material may be later revised and submitted to a journal, if permitted by the journal.

### Visit [www.sigevo.org/gecco-2011](http://www.sigevo.org/gecco-2011)

For detailed instructions, including categories, keywords, and formatting requirements, visit <http://www.sigevo.org/gecco-2011>. Be sure to check the web page for changes that may appear as the paper submission deadline approaches.

### Follow us at [www.twitter.com/GECCO2011](http://www.twitter.com/GECCO2011)

News and updates are also posted on our Twitter page. Visit <http://www.twitter.com/GECCO2011> and start following us!



### Accept author agreement

By submitting a paper, the author(s) agree that, if their paper is accepted, they will:

- \* Submit a final, revised, camera-ready version to the publisher by Monday, April 18, 2011
- \* Register at least one author to attend the conference by Monday, May 2, 2011
- \* Attend the conference (at least one author)
- \* Present the accepted paper at the conference

### More Information

Visit [www.sigevo.org/gecco-2011](http://www.sigevo.org/gecco-2011) for information about deadlines, student travel grants, hotel reservations, student housing, the graduate student workshop, the latest list of topics, late-breaking papers, and more. For matters of science and program content, contact Conference Chair Pier Luca Lanzi at [lanzi@elet.polimi.it](mailto:lanzi@elet.polimi.it). For general help and administrative matters contact GECCO Support at [gecco2011@sigevo.org](mailto:gecco2011@sigevo.org)

### About the Conference Venue

Dublin is the lively capital of Ireland and the perfect GECCO destination. It is served by several low-cost airlines, offering a wide range of flight deals, and provides several accommodation options. The social event will take place at Ireland's No. 1 international visitor attraction, the Guinness Storehouse. More information at <http://www.visitdublin.com>



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The Genetic and Evolutionary Computation Conference (GECCO-2011) will present the latest high-quality results in the growing field of genetic and evolutionary computation. Topics include: genetic algorithms, genetic programming, evolution strategies, evolutionary programming, memetic algorithms, hyper heuristics, real-world applications, learning classifier systems and other genetics-based machine learning, evolvable hardware, artificial life, adaptive behavior, ant colony optimization, swarm intelligence, biological applications, evolutionary robotics, coevolution, artificial immune systems, and more.

## GECCO Organizers

**Conference Chair:** Pier Luca Lanzi

**Editor-in-Chief:** Natalio Krasnogor

**Local Chair:** Michael O'Neill & Anthony Brabazon

**Publicity Chair:** Xavier Llorà

**Tutorials Chair:** Darrell Whitley

**Workshops Chairs:** Jaume Bacardit & Ivan Taney

**Competitions Chair:** Martin V. Butz

**Late Breaking Papers Chair:** Christian Blum

**Graduate Student Workshop Chair:** Miguel Nicolau

**Business Committee:** Wolfgang Banzhaf & Una-May O'Reilly

**Evolutionary Computation in Practice:** Joern Mehnen, Thomas Bartz-Beielstein, and David Davis



## Program Tracks and Chairs

**ACO/Swarm Intelligence:** Andries Engelbrecht & David Pelta

**Artificial Life/Robotics/Evolvable Hardware:** Carlos Gershenson & Giovanni Squillero

**Bioinformatics and Computational Biology:** Marilyn Ritchie & Alex Freitas

**Evolutionary Combinatorial Optimization and Metaheuristics:** Yew Soon Ong & Gunther Raidl

**Estimation of Distribution Algorithms:** Marcus Gallager & Jose Lozano

**Evolutionary Multiobjective Optimization:** Carlos Coello-Coello & Dario Landa Silva

**Evolution Strategies and Evolutionary Programming:** Silja Meyer-Nienberg & Nikolaus Hansen

**Genetic Algorithms:** Jim Smith & Gus Eiben

**Genetics-Based Machine Learning:** Ester Bernadó-Mansilla & Will Browne

**Genetic Programming:** Lee Spector and Tina Yu

**Generative and Developmental Systems:** Jeff Clune & Greg Hornby

**Parallel Systems:** Man-Leung Wong & Pierre Collet

**Real world applications:** Steve Gustafson & Paul Watson

**Search-Based Software Engineering:** Moshe Sipper & Simon Poulding

**Theory:** Carsten Witt & Anne Auger

## Planned Free Tutorials

### Introductory Tutorials

* Genetic Algorithms	Erik Goodman
* Genetic Programming	Una-May O'Reilly
* Evolution Strategies	Thomas Bäck
* Learning Classifier Systems	Martin V. Butz
* Probabilistic model-building genetic algorithms	Martin Pelikan
* Statistical analysis for evolutionary computation: Introduction	TBA
* Evolutionary neural networks	TBA
* CMA-ES	A. Auger and N. Hansen
* Ant colony optimization	Christian Blum
* Evolutionary computation: A unified view	Kenneth De Jong
* Financial Evolutionary computation	TBA

### Advanced Tutorials

* Genetic Programming Theory	Riccardo Poli
* Genetic Algorithms Theory	TBA
* Computational Complexity and EC	TBA
* Evolving Quantum Computer Algorithms	Lee Spector
* Evolutionary Multiobjective Optimization	TBA
* Constraint handling techniques using EAs	TBA
* Evolutionary computation with GPUs	W. Banzhaf, P. Collet, & S. Harding
* Synthetic Biology	Natalio Krasnogor

## To Propose a Tutorial or Workshop

A detailed call for workshop and tutorial proposals will be posted later so stay tuned! Meanwhile, for enquiries regarding tutorials contact [gecco2011tutorials@sigevo.org](mailto:gecco2011tutorials@sigevo.org) while for enquiries about workshops contact [gecco2011workshops@sigevo.org](mailto:gecco2011workshops@sigevo.org)

For general help and administrative matters contact GECCO Support at [gecco2011@sigevo.org](mailto:gecco2011@sigevo.org).

## SIGEVO Executive Committee

Darrell Whitley (chair)	John H. Holland
Wolfgang Banzhaf	John R. Koza
Juergen Branke	Pier Luca Lanzi
Erick Cantú-Paz	Una-May O'Reilly
David Davis	Riccardo Poli
Kalyanmoy Deb	Franz Rothlauf
Kenneth De Jong	Marc Schoenauer
Anna Esparcia-Alcazar	Lee Spector
Erik D. Goodman	Dirk Thierens

