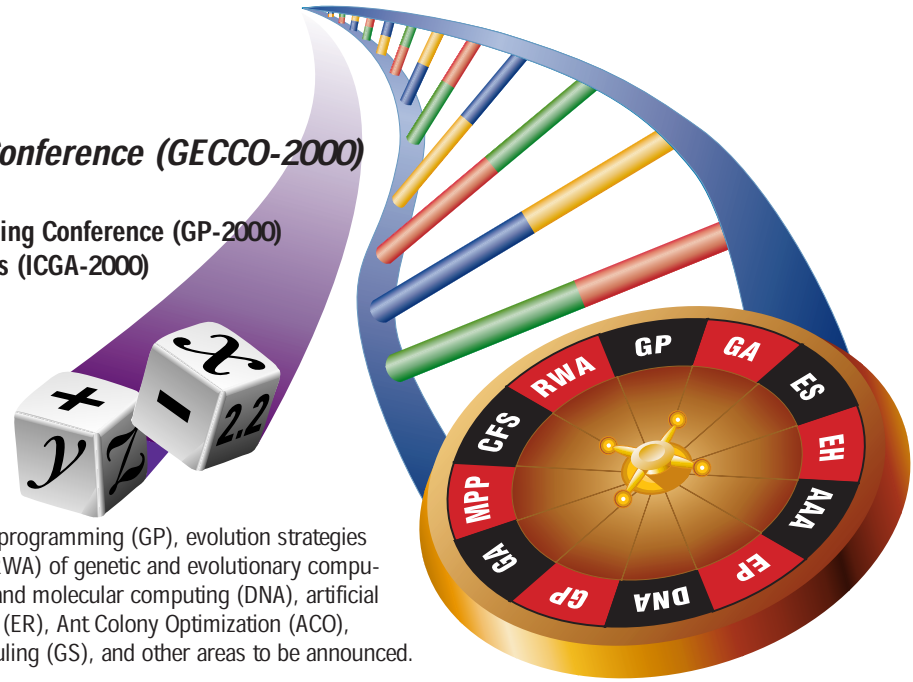
# GECCO-2000

## *Genetic and Evolutionary Computation Conference (GECCO-2000)*

**A recombination of the Fifth Annual Genetic Programming Conference (GP-2000) and the International Conference on Genetic Algorithms (ICGA-2000)**

**July 8-12, 2000 (Saturday-Wednesday), Las Vegas, Nevada USA**




The Genetic and Evolutionary Computation Conference (GECCO-2000) will present the latest high-quality research results in the growing field of genetic and evolutionary computation. Topics include, but are not limited to, genetic algorithms (GA), genetic programming (GP), evolution strategies (ES), evolutionary programming (EP), real-world applications (RWA) of genetic and evolutionary computation, classifier systems (CFS), evolvable hardware (EH), DNA and molecular computing (DNA), artificial life, adaptive behavior, and agents (AAA), Evolutionary Robotics (ER), Ant Colony Optimization (ACO), Methodology, Pedagogy, and Philosophy (MPP), Genetic Scheduling (GS), and other areas to be announced.

The conference is organized around independently operating program committees that will establish their own procedures for peer reviewing and will make the final decisions on submitted papers for their areas (subject only to conference-wide space limitations and procedures).

Additional information will be periodically posted on the Web at **www.genetic-programming.org** and **www.genetic-algorithm.org**.

**SPECIAL PROGRAM TRACKS** (*Others to be announced*)
DNA and Molecular Computing
Evolutionary Robotics
Artificial Life, Adaptive Behavior, and Agents
Genetic Scheduling
Ant Colony Optimization
Methodology, Pedagogy, and Philosophy

**FREE TUTORIALS** (*Others to be announced*)
All conference participants can attend conference tutorials on Sunday July 9, 2000, free of charge. There are introductory tutorials as well as tutorials aimed at more advanced audiences.

Wolfgang Banzhaf - *Genetic Programming with Linear Genomes*
Hans-Georg Beyer - *Introduction to Evolution Strategies*
Forrest H Bennett III - *Analog Circuit Design via Genetic Programming*
Russell Deaton and Stephen Karl - *Introduction to DNA Computing*
Marco Dorigo - *Ant Algorithms*
Alex Freitas - *Data Mining with Evolutionary Algorithms*
David E. Goldberg - *An Idiosyncratic Introduction to Genetic Algorithms*
Robert Heckendorn - *Polynomial Time Walsh Analysis*
Tetsuya Higuchi - *Evolvable Hardware*
John R. Koza - *Introduction to Genetic Programming*
William Langdon - *Genetic Programming Data Structures*
Zbigniew Michalewicz - *Constraint Optimization using Evolutionary Algorithms*
Peter Nordin - *Machine Code Genetic Programming*
Tom Ray - *Tierra Tutorial*
Guenter Rudolph - *Real Coded Theory of Evolutionary Algorithms*
Conor Ryan - *Automatic Parallelization Using Genetic Programming*
Alan Schultz and Mitchell Potter - *Evolutionary Robotics*
Moshe Sipper - *Cellular Programming*
Michael Vose - *Genetic Algorithm Theory*
Stewart Wilson - *Classifier Systems*

**GENERAL CHAIR:** Darrell Whitley

**PROGRAM CHAIRS:**
Lee Spector - *Genetic Programming and Evolvable Hardware*
Dave Goldberg and Eric Cantu-Paz - *Genetic Algorithms and Classifier Systems*
Ian Parmee - *Real World Applications*
Hans-Georg Beyer - *Evolution Strategies and Evolutionary Programming*

**ELECTRONIC PUBLICITY CHAIRS:** Jean-Paul Watson, Laura Barbulescu

**WORKSHOP CHAIR:** Annie Wu

**BUSINESS COMMITTEE:** David E. Goldberg and John R. Koza

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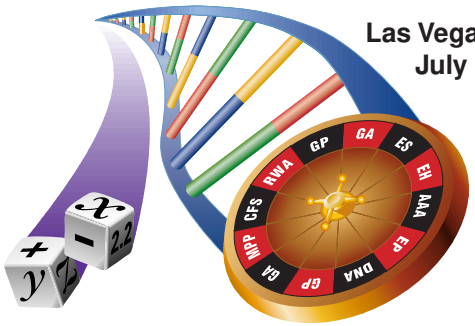
**INFORMATION ABOUT LAS VEGAS**
The conference will be held at a major hotel in Las Vegas. Las Vegas is served by an international airport with 390 flights and 55,000 seats daily, including nonstop flights from 30 cities and 360 direct flights from 5,000 cities. For tourist information about Las Vegas, visit `www.lasvegas24hours.com`

**ADDITIONAL INFORMATION**
For information concerning hotel reservations, travel discounts, student housing, student travel grants, graduate student workshop, proposals for workshops, proposals for additional tutorials, late-breaking papers, and other matters, visit `www.genetic-programming.org` or `www.genetic-algorithm.org`. E-Mail for Technical Matters: contact Darrell Whitley, GECCO-2000 Chair, at `whitley@cs.colostate.edu` E-Mail for Administrative Matters: `gecco@aaai.org` Conference administered by the American Association for Artificial Intelligence, 445 Burgess Drive, Menlo Park, CA 94025 USA. Phone:650-328-3123. Fax: 650-321-4457. Conference operated by International Society for Genetic Algorithms, Inc., a Massachusetts not-for-profit corporation and Genetic Programming, Inc., a California Corporation.

**HOW TO SUBMIT A PAPER TO THE GECCO CONFERENCE**
Paper submission deadline is January 26, 2000. See back for details.

**Prof. Darrell Whitley**
**Computer Science Department**
**Colorado State University**
**Fort Collins, CO 80523 USA**




**Las Vegas, Nevada**
**July 8-12, 2000**

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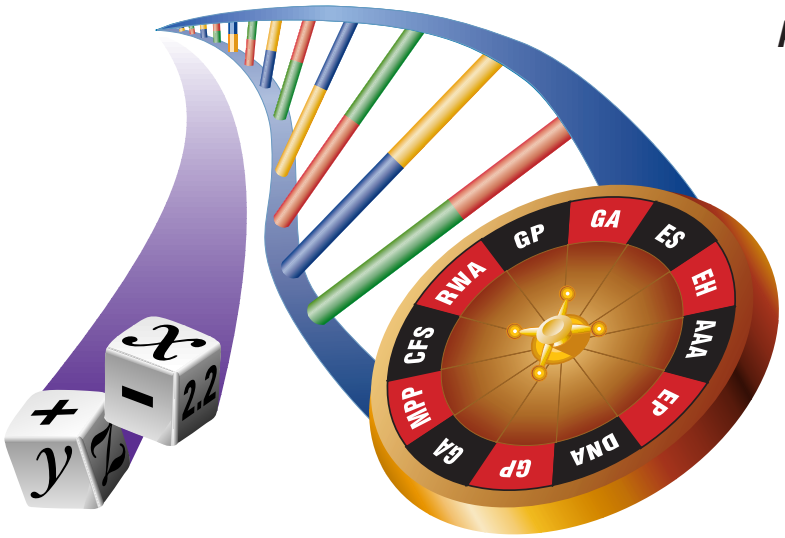


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### HOW TO SUBMIT A PAPER TO THE GECCO CONFERENCE

The deadline for ARRIVAL at the physical address below of eight (8) paper copies of each submitted paper is WEDNESDAY, JANUARY 26, 2000. The address is GECCO-2000, c/o AAAI, 445 Burgess Drive, Menlo Park, CA 94025. USA. Phone 650-328-3123.

Submitted papers are to be in single-spaced, 10-point type on 8 1/2" x 11" or A4 paper with 1" margin at top and 3/4" margin at left, right, and bottom. A4 paper may be used. Papers may not be submitted by e-mail or fax.

Each paper is to contain ALL of the following 9 items, contained entirely within a maximum total of eight (8) pages, IN THIS ORDER:

**1)** the paper's category (chosen from one of the following alternatives (Genetic Algorithms, Genetic Programming, Evolvable Hardware, Classifier Systems, Evolution Strategies, Evolutionary Programming, DNA and Molecular Computing, Real-World Applications, Artificial Life, Adaptive Behavior, and Agents, Evolutionary Robotics, Genetic Scheduling, Ant Colony Optimization, Methodology, Pedagogy, and Philosophy, and such other categories as many be subsequently announced on the WWW page,
**2)** title of paper,
**3)** author name(s),
**4)** author physical address(es),
**5)** author e-mail address(es),
**6)** author phone number(s),
**7)** a 50-200 word abstract of the paper at the beginning of the paper,
**8)** the text of the paper (including all figures, tables, acknowledgments, and appendices, if any), and
**9)** bibliography. Review criteria will include significance of the work, novelty, clarity, writing quality, and sufficiency of information to permit replication (if applicable).

The first-named author (or other corresponding author designated by the authors at the time of submission) will be notified of acceptance or rejection (on approximately the first week of March, 2000). It is preferred (but not required) that the format of submitted papers roughly follow the required format for final camera-ready papers. The required style for the final camera-ready papers is posted on the GECCO WWW page and is identical to that of GECCO-99. Different numbers of pages may be allocated to accepted papers based on the policies of the various separate program tracks of the conference. The deadline for final camera-ready version of accepted papers will be announced (and will be approximately the first week of April, 2000). There will be two volumes for the conference proceedings books. By submitting a paper to the conference, the author(s) agree that, if their paper is accepted,

**1)** they will submit a final revised camera-ready version by the deadline for camera-ready papers (approximately the first week of April, 2000),
**2)** register at least one author by the deadline for camera-ready papers, and
**3)** at least one author will attend and present the accepted paper at the conference.

The material in papers must represent substantially new work that has not been previously published by conferences, journals, or edited books in the evolutionary computation field. GECCO permits a paper to be submitted to the GECCO conference that is substantially similar to a paper being contemporaneously submitted for review to another conference; however, if the submitted paper is accepted by the GECCO conference, 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 involved).