Welcome to the Proceedings of GECCO-2005, the seventh GECCO, and in turn a “recombination” of the Fourteenth International Conference on Genetic Algorithms (ICGA) and the Tenth Genetic Programming Conference (GP)! If you are reading this at GECCO-2005, we hope you will have the type of productive and memorable experience that GECCO is so well known for. If you were not able to attend GECCO-2005 in person, we trust that you will find the articles contained in these Proceedings to be of lasting value. The inclusion of these Proceedings in the ACM Digital Library means that they are accessible to a wider audience than ever before, which is good news for both the authors and those seeking the information presented here. The highly decentralized review process used for reviewing papers for possible inclusion in these proceedings and oral presentation at GECCO has once again produced an outstanding result — some 47% of papers submitted were accepted as full papers, and an additional 25% were accepted for presentation as posters and 2-page abstracts in these proceedings. These papers span the dynamic field of evolutionary computation, and the review process assures that each category of papers is reviewed by experts in that subspecialty. This year, the Program Committee included sixteen separate review tracks, including several new ones — an indication of the vibrancy of our field and our conference!

**SIGEVO!**

This is a year of many transitions for GECCO and the organization that operates it. We hope that the attendees of this and future GECCO conferences, together with other members of the new ACM SIGEVO, will experience many benefits from the decision of the International Society for Genetic and Evolutionary Computation, Inc. (ISGEC) to reorganize as a Special Interest Group of the Association for Computing Machinery, the first society in computer science. The new organization is called the Special Interest Group for Genetic and Evolutionary Computation, or SIGEVO, for short. All of you who were “paid-up” members of ISGEC as of December, 2004, automatically became members of SIGEVO for 2005, and will receive the journals *Evolutionary Computation* and *Genetic Programming and Evolvable Machines* throughout 2005. However, the dues structure for SIGEVO will be very different from that of ISGEC. Membership for those joining in 2005 is only $25, but will still provide a $75 discount for GECCO-2005 registration. Journal subscriptions are no longer included, at this low membership rate, but we hope that you will choose to continue to subscribe to these two outstanding journals, and many of you will have electronic access to them through your universities or companies. ACM and the publisher of GPEM have already agreed in principle to make GPEM available in the Digital Library and to offer discounted GPEM subscriptions to all ACM members; talks between ACM and the publisher of EC are also underway.

In this transition year, GECCO has been neither fish nor fowl — perhaps evolving into some new life-form...Much of the organization of GECCO-2005 preceded the transition into SIGEVO, and AAAI, the American Association for Artificial Intelligence, which has provided outstanding administrative and logistics support for all of the past GECCO conferences, is again strongly involved, and is on-site for the conference. They have worked very supportively with Una-May O’Reilly (GECCO-2005 General Chair), Hans-Georg Beyer (Editor-in-Chief), the Business Committee (John Koza and Dave Goldberg), and others to make this transitional GECCO the best yet, and we are very grateful for their support this year and since the beginning! At the same time, this year’s organizers and next year’s have already been working with ACM’s SIG Support Staff to provide additional visibility for this year’s GECCO, produce this year’s proceedings, and assume all of the logistics support responsibilities for GECCO-2006. Mike Cattolico, who will be General Chair of GECCO-2006 in Seattle, Washington, July 8–12, 2006, is hard at work assembling an outstanding team to make it a great success! You may remember that Mike did an excellent job as Local Arrangements Chair for
GECCO-2004. Incidentally, we’re going back to Seattle in 2006 in order that participants who wish can attend both GECCO-2006 and, a few days later, CEC in Vancouver, BC, without destroying their travel budgets.

FOGA

2005 has already seen a very successful Eighth FOGA Workshop, held January 5–9, in Aizu, Japan. Many of the leading lights in genetic and evolutionary computation theory gathered there to present their work and exchange ideas. As usual, the proceedings volume (in Springer’s Lecture Notes in Computer Science series) will doubtless become a valuable reference work for people in the field, and a special issue of the journal *Theoretical Computer Science* with revised versions of some of the papers is also planned. Our thanks to the primary organizers, Alden Wright, Michael Vose, Ken De Jong, and Lothar Schmitt, for a job well done! The SIGEVO Executive Committee will soon be soliciting proposals for FOGA-2007 — that means a place, dates, and a group of organizers. If you are interested, please contact the organizers of FOGA-2005 for more information.

Involvement in SIGEVO

SIGEVO is in its first year, as a “transitional SIG.” Most of the leadership during this transition is provided by former ISGEC leaders, to smooth the process. Other officers recently elected by the Executive Committee are John Koza (vice chair), Erick Cantú-Paz (secretary), and Wolfgang Banzhaf (treasurer). General membership elections are not held by SIGs during their first “transitional” year, so there will not be an election this year, but I expect that in 2006, elections of members of the SIGEVO Executive Committee will begin, staggered so as to replace a portion of the Committee every year. Most of our ISGEC activities will continue — for example, SIGEVO will have a Council of Authors (so if you are author or editor of a new book, let us know, and we’ll get you and your book listed on our new SIGEVO web pages). ISGEC’s Council of Fellows will undergo a change of name (yet to be determined, but not to conflict with “ACM Fellows”), although those already elected will always be ISGEC Fellows.

If you are interested in devoting some time and energy to GECCO and SIGEVO, please let me know (goodman@egr.msu.edu). We have many more ideas than we have people to implement them, and we’re still open to more ideas. The next few years will be important ones for kicking off SIGEVO, and I welcome all of your help and support in making it as helpful to our membership as we can!

Erik Goodman
SIGEVO Chair