1972–73
George E. Forsythe
Student Paper Competition Awards

The second annual ACM Communications student paper competition, now known as the George E. Forsythe Student Paper Competition, was run by a committee of eight graduate students in Computer Science at Carnegie-Mellon University. Coordinating this year’s competition began in late 1971; the papers arrived in September 1972; and published here is the culmination of the efforts of the entrants and of the Editorial Committee members.

We, the ACM Communications Student Editorial Committee, chose to publish the three Prize Papers in their entirety and the abstracts of the two runners up. First Prize went to “A Learning Program Which Plays Partnership Dominos” by Michael H. Smith of the University of California at Berkeley. Mr. Smith will receive $250 cash, a trip to ACM 73 to receive his award, and a three-year subscription to the ACM serial publication of his choice. Two papers were tied for Second Prize: “A New Axiomatic Basis for Program Semantics” by Bruce J. MacLennan of Florida State University, and “Petri Nets and Speed Independent Design” by David Misunas of the Massachusetts Institute of Technology. Each author will receive $125 cash and a three-year subscription to the ACM serial publication of his choice. The quality of these three papers speaks for itself.

The runners-up were “A Self-Modifying Extrapolation Method for Solving Ordinary Differential Equations” by Dar D. Daily of Kansas State University, and “A Computer Solution of Polygonal Jigsaw Puzzles” by Ejvind Lynning of Brandeis University. We are publishing abstracts of both these papers.*

Six papers were chosen for honorable mention: “Garbage Collection in a Paged Lisp Processor” by Paul Bradford Dale, Union College; “A Computer Simulation of a Fire District” by Richard M. Evans, Allegheny College; “Computer Simulation of Visual Information Processing and Memory Storage” by Thomas C. Henderson, Louisiana State University; “An Interpolation Theorem Applied to Automatic Theorem Proving” by Steven Homer, University of California at Berkeley; “Simulation of the Genetics and Evolutionary Dynamics of a Two-Locus System” by Trudy Mackay and Sally Burton, Dalhousie University; and “Shift Bounds for Inverse Iteration” by Jesse P. May, University of Oklahoma.

We would like to thank the other authors for their participation and encourage them to continue their work. Also, a word of thanks is in order to the faculty members who agreed to serve as sponsors of the papers. Their time and effort was largely responsible for the generally high quality of the papers.

As with all other articles submitted to Communications, each student paper was refereed by someone knowledgeable in the subject of the paper. In this competition most of the refereeing was done by graduate students, although a few faculty members also took part. Their reports were useful to the Committee for evaluation purposes and to the authors from an instructional point of view. We would like to thank the referees by mentioning them here:

William W. Agresti — Richard Nearing
Birol Aygun — Judson F. Parker
Madeline Bauer — Keith Price
Jeff Buckwalter — Michael T. Rebmann
Robert W. Button — Paul Rushton
Clive B. Dawson — T. Wayne Rounsavell
Davis S. Dodson — Ernst Schuegraf
Michael R. Dunlavy — Lawrence J. Schuette
Geoffrey W. Gates — Margaret Shay
William Glikbarg — Sharon Sickel
Steven Hobbs — G. W. Stewart
D. Loveland — Jolulit Vanderhoof
Roy Lowrance — David L. Waltz
Michael Lutz — Dorothy Lang Wedel
Steven S. Muchnick — Peter Wegner

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We feel that we have learned a great deal from having conducted the 1972–73 George E. Forsythe Student Paper Competition—how a refereed journal works; what constitutes a good paper; how to make a good paper better. We hope that many others will have the opportunity to participate in some facet of this competition; it is a rewarding experience.

—1972–73 ACM Communications Student Editorial Committee:

Lawrence Robinson, chairman
Gideon Ariely
Robert Chen
Ellis S. Cohen
Don Heller
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Mark Stickel
Ronald Tugender

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