

## Media Advisory, Fourth International Conference on Genetic Algorithms

July 11, 1991

MEDIA ADVISORY

EVENT: COMPUTING BASED ON EVOLUTIONARY PROCESSES

The Fourth International Conference on Genetic Algorithms (ICGA '91)

DATES: Saturday, July 13 -- Tuesday, July 16

LOCATION: Price Center University of California, San Diego

**BACKGROUND:** In recent years, an increasing number of computer scientists and biologists have turned to genetic algorithms to help solve certain computational problems.

In essence, genetic algorithms apply the evolutionary principals of natural selection to produce solutions to difficult problems. In this manner, new solutions are permitted to evolve by mating the best of the old solutions with one another.

Genetic algorithms have been applied with some success to pattern recognition, "artificial life" investigations and classifier systems. They also have found wide application in some forms of economic modeling, and are being used to solve such real-world problems as jet engine design.

Biologists also are interested in genetic algorithms as models to help them better understand the evolutionary process in nature. In some respects, they offer many of the same advantages to evolutionary biologists that neural networks do for neuroscientists: computational models that are interesting both to computer people and biologists.

ICGA's 91 meeting brings together an international community of about 300 scientists from academia and industry interested in algorithms suggested by the evolutionary process of natural selection.

Invited speakers include the following:

John Holland, of the University of Michigan, the father of genetic algorithms. (1:15 P.M., Sat.)

John Miller, of the Santa Fe Institute, who is using genetic algorithms in economics. (3:30 P.M., Sat.)

Marcus Feldman, of Stanford University, who will discuss aspects of evolution as it pertains to genetic algorithms. (2 P.M., Sat.)

Richard Belew, assistant professor of computer science and engineering (CSE) at UCSD, who is exploring biological insights obtained from genetic algorithms. (11:30 A.M., Sat.)

Members of the press are invited to attend the conference and interview speakers. A program is available upon request.

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