

## THE ACM COMPUTER-CHESS CHALLENGE

**Philadelphia, Penn.  
February 10-17, 1996**

*M. Newborn*<sup>1</sup>

A six-game match between Garry Kasparov and DEEP BLUE will be held at the Philadelphia Convention Center, adjacent to the Marriott Hotel, in Philadelphia, Penn. Games will be played on the 10th, 11th, 13th, 14th, 16th, and 17th of February 1996, beginning at 3:00 p.m. Time controls are after 40 moves in two hours, followed by 20 moves in one hour, finally followed by 30 minutes for all remaining moves.

A prize of US \$ 400,000 will be offered to the winner and US \$ 100,000 to the loser. The event is being organized by the ACM Computer Chess Committee under the auspices of the ICCA. Mike Valvo will serve as the Umpire. The event is part of the ACM's Computing Week festival which will celebrate the 50th birthday of the modern electronic computer, designed at the University of Pennsylvania in Philadelphia.

For further information, contact Terry Phoenix at the ACM (212-869-7440 or phoenix@acm.org or Monty Newborn at 514-398-7079 or newborn@cs.mcgill.ca).

## THE ACM COMPUTER-CHESS WORKSHOP

### RECENT ADVANCES IN COMPUTER CHESS

**Philadelphia, Penn.  
February 16, 1996**

ICCA Communication by M. Newborn<sup>1</sup>

As part of ACM's Computing Week '96, a six-game match between the world chess champion Garry Kasparov and the world's top chess-playing computer DEEP BLUE is being held. On February 16, a workshop will be held, organized by the ACM Computer-Chess Committee, chaired by Professor Monty Newborn, with Professor Tony Marsland as the day's session Chairman. The title of the workshop is *Recent Advances in Computer Chess*.

By the time the workshop is held, four of the six games will have been played and we will have some insight into recent advances. These advances have taken place gradually over a thirty-year period and the evidence suggests that they will continue. Many advances have been tested at ACM computer-chess tournaments dating back to 1970, and their programmers have presented their ideas at similar ACM workshops.

At this workshop, three papers will be presented, selected to be of interest of the chess community as well as to the computer community. Each paper will take up to 25 minutes to present, followed by questions and discussions. Two deal with the mechanics of searching chess trees. While the usual human vocabulary associated with playing chess is absent from these papers – the notions *fork* and *pin* may not appear – nevertheless they deal with how to design strong chess-playing programs.

The first paper is by Jonathan Schaeffer and Aske Plaat; it is entitled *New advances in alpha-beta searching*. The alpha-beta algorithm is the main search algorithm used by chess programs as well as by programs that play other two-person games. Schaeffer has designed the world's leading checker-playing

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