**SOCRATES 2.0 BEATS GRANDMASTER SAGALCHIK**

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In an exciting chess game that lasted over seven hours, International Grandmaster Gennady Sagalchik (USCF rating 2568 – 35th-highest ranked player in USA) had to eat his words when he lost to a machine in 56 moves. Only one month earlier, he had predicted that “it is unlikely that any computer will defeat a grandmaster this year.” [February 18, 1995, at a simultaneous chess exhibition at the University of Maryland Baltimore County]

The victor was *SOCRATES 2.0*, searching over two million positions per second. The 1824-node Intel Paragon supercomputer used in the match was made available, via telephone link, by Sandia National Laboratories in Albuquerque, New Mexico. *SOCRATES 2.0*, originally based on Heuristic Software’s Socrates program, employs the Jamboree search algorithm, a massively-parallel search technique developed at the MIT Laboratory for Computer Science for the StarTech program (Kuszmaul, 1995). The lead programmers for *SOCRATES* are Don Dailey and Christopher F. Joerg, and the project team also includes Robert D. Blumofe, Matteo Frigo, I.M. Larry Kaufman, Dr. Bradley Leiserson (project leader), Keith Randall, Rolf Riesen (Sandia National Labs), and Dr. Yuli Zhou.

The match took place March 24, 1995, at the University of Maryland Baltimore County (UMBC), where Dailey moved the black pieces on behalf of the computer. Over two hundred chess enthusiasts throughout the world kibitzed in cyberspace – setting a new record – as each move was broadcast on the Internet Chess Club. More than 500 spectators also watched a camera image of the match displayed through the World Wide Web, a network of informational resources spanning the planet. The world-wide-web page for the match can be found at http://www.cs.umbc.edu/conferences/mdt95/mm_match/

Meanwhile, approximately one hundred researchers and chess-players converged at UMBC for the Man vs. Machine Chess Match, which was part of the 12th Maryland Theoretical Computer Science Day organized by computer science Professors Richard Chang and Alan Sherman. Financial support for the conference was provided by the National Security Agency, with additional support for the Man vs. Machine Chess Match provided by the Intel Corporation.

Although Sagalchik secured an early lead, *SOCRATES* later gained a psychological advantage after several machine crashes, delaying the game by a total of about 100 minutes, which rattled the Grandmaster. Barely completing the first forty moves within the required two hours, Sagalchik lost shortly after *SOCRATES* promoted its b-Pawn to a second Queen.

Immediately after this slow game, an informal game was played at twenty minutes each, in which Sagalchik lost again, playing the white pieces.

**Game scores**

**Sagalchik – *SOCRATES*** (Keycode: NI 18.4.1)

Game 1 (40 moves / 2hrs; thereafter 20 moves / 2hrs)

**Reference**


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