

The last talk in the first session was titled *Tree search in two-player games using bounded common interest to prune* and presented by the author, Jeroen Donkers. The main question was “how can opponent-modelling be extended so that it includes knowledge symmetry?” The proposed answer is to switch from zero-sum games to non-zero-sum games during heuristic search. However, there is a problem, namely that those games can have many equilibria that might differ largely. The author introduced the concept of ‘bounded common interest’ that both allows pruning in an alphabeta-like way and that limits the differences between the equilibria. The latter element diminishes the risk of selecting a non-optimal equilibrium.

The second session was completely dedicated to computer Go. The session started with a presentation by Ken Chen, author of the paper titled *Soft and Hard Connectivity in Go*. As the title suggests, the author distinguishes two types of connectivity: hard connectivity exists if the opponent cannot prevent a player from connecting to a group, soft connectivity exists if the opponent could prevent connection, but only against high costs. The author shows a heuristic based on influence theory to detect soft connectivity. To detect the shortest hard-connectivity paths, the author proposed to apply proof-number search variants such as Pn+.

The second and the third presentation were both given by Bruno Bouzy. He started with the presentation of his own paper *History and Territory Heuristic in Monte-Carlo Go*. In this paper the author presents two heuristics each in two forms: internal and external. Internal means that the heuristic is used inside the Monte-Carlo simulations. External means that the data for the heuristic is collected during the Monte-Carlo simulation, but used in the following pre-selection stage in which moves are selected for the next Monte-Carlo round. The territory heuristic uses the average occupation (black / white) for every intersection at the end of the simulations. It produces a measure of urgency for moves to play next. The history heuristic uses the outcome of the Monte-Carlo simulations (bad or good move) to change the urgency of moves to select next. The external territory and external history heuristic appeared to perform best.

Bruno Bouzy continued with the presentation of Tristan Cazenave’s paper *The Separation Game*. This presentation fitted well to the first Go paper since a separation is related to the concept of soft and hard connectivity. A separation exists if a player can prevent the opponent from connecting two groups. It appears that separation exists if there is 8-connectivity. So, searching for separation is searching for 8-connectivity. The author explains how generalized threat search (GTS) is used to find the important separations. Experimental results show that the method increases the search efficiency significantly.

The second session was closed by the presentation *The Strategies for a Simple One-Point Ko Situation of Computer Go* (S J Huang, S S Lin, and S J Yen) given by Shi-Jie Huang. After explaining the basics of ko-fight in Go, including ko-threats, the author showed a method to transform the ko-fight into a simpler game by using the values of ko itself, the ko-threats, and other interesting moves. This simplified game can then be solved by a minimax procedure.

The two computer-game sessions gave an interesting and inspiring insight into the work-in-progress in this area. The closing dinner with the participants and the friendly venue of Salt Lake City added to the wonderful experience. We thank Ken Chen for organizing this event again.

CALENDAR OF COMPUTER-GAMES EVENTS IN 2006

May 25 – June 1, 2006

The 14th World Computer-Chess Championship, Torino, Italy. Information: Professor Ciancarini, email: cianca@cs.unibo.it or Johanna Hellemons, email: info@icga.org. [Http://www.icga.org](http://www.icga.org)

May 25 – June 1, 2006

The 11th Computer Olympiad, Torino, Italy. Information: Professor Ciancarini, email: cianca@cs.unibo.it or Johanna Hellemons, email: info@icga.org. [Http://www.icga.org](http://www.icga.org)

May 29–31, 2006

The Computers and Games Conference 2006 (CG2006), Torino, Italy. Information: Professor Ciancarini, email: cianca@cs.unibo.it or Johanna Hellemons, email: info@icga.org. [Http://www.icga.org](http://www.icga.org)

June 9-24, 2006

The 2006 Computer-Bridge Championship will take place as part of the World Bridge Federations’s (WBF) World Championships, Verona, Italy. Information: Mr Al Levy, email: Allevy@aol.com