

## ICGA chess in Stockholm: A player perspective

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I've only attended a few WCCCs in the past, e.g. in Paderborn, Maastricht and Leiden. From my point of view, Stockholm was overall one of the best tournaments! I really liked the venue in the Stockholmsmässan and the combination with the AI conferences. Playing in the entrance hall, we had quite a lot of visitors watching the games and asking questions, and one could even meet some well known 'computer games people' like Jonathan Schaeffer. It's nice, if people can walk by and ask questions, and it was fun watching Mark showing magic tricks or Erdo teaching a girl the rules of chess.

Having all four WCCC games on one screen and GM Harry Schüssler as a humorous commentator was great for us and the spectators and I was surprised how many conference attendees came to watch the games and listen to his comments. Sometimes all of the chairs were occupied.

Some feedback regarding the tournaments. First, I think it is good to have the Blitz and WCSC on Friday-Sunday and the WCCC afterwards.

Most of the time, there was a positive, friendly atmosphere among the programmers – most of them very experienced chess programmers – and with Jan and David, we had a very experienced Tournament Director and tournament organiser.

It was great to have a first pure NN engine in the WCCC, and in my opinion, this WCCC was just on the edge of a paradigm shift from classical alpha-beta engines to ML/AI engines.

Speed/Blitz: this is definitely the most difficult tournament for the operators and for JONNY and our program GRIDGINKGO, both running on clusters, the time to set up for the next game was sometimes short. In the players meeting, we had decided to play only three instead of four rounds, but even the three rounds took longer than expected and there would not have been enough time for playoffs. This could have been avoided by calculating how long  $n$  rounds with  $5' + 5''/\text{move}$  games would take. In my opinion, we should have started earlier or played only two rounds.

The tournament then went as expected with KOMODO winning by some margin. We were happy that GRIDGINKGO worked so well since these short thinking times do not suit the cluster.

WCSC: from my point of view, the WCSC went quite smoothly. Having notebooks made it easy to arrange for the next round. Again, time was a bit short in the end since BOOOT managed to reach a playoff vs. KOMODO. Congratulations to Mark, Erdo and Alex!

GINKGO finished third, which was quite a good result, e.g., ahead of former world champions SHREDDER and JONNY.

WCCC: I had to leave on Tuesday, so I only attended the first two games. The WCCC really went well for GRIDGINKGO, reaching the playoff against KOMODO. In a field with SHREDDER, CHIRON, BOOOT and a JONNY on more than 2000 cores, this was above our expectations.

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1 We were even a bit unlucky that KOMODO won on time against LEELA CHESS ZERO in the first round 1  
2 where KOMODO was an exchange down in a drawn ‘tablebase’ endgame. In my opinion, LEELA lost 2  
3 because of non-chess-related factors like a GUI that was difficult to operate and setting not enough 3  
4 operator time. LEELA did not come into time trouble in the following rounds so KOMODO was a bit 4  
5 lucky to play a strong but inexperienced opponent in the first round. 5

6 In the ‘battle of the clusters’, JONNY-GRIDGINKGO, we were lucky to hold a draw. After playing the 6  
7 dubious move **8. . . a5** from book, not caused by the book preparation but by a bug of the UI we used 7  
8 on the cluster node, GRIDGINKGO had difficulties in defending its position and was in time trouble 8  
9 for almost the final hundred moves. We should also have set more operator time and did afterwards. 9  
10 Wolfgang did a great job in the long blitz-phase with never more than 2 minutes on the clock. He 10  
11 proved that even computer chess can be a sports event! 11

12 The game GINKGO-LEELA could not start as planned: LEELA’s operator had to leave unexpectedly 12  
13 because of an unfortunate family accident. However, the LEELA team managed to have a new operator 13  
14 on site a few hours later, so instead of another loss on time for LEELA, it was agreed to play the game 14  
15 later but with reduced time control to keep to the planned schedule of the next rounds. 15  
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17 Reduced time controls are a drawback for the cluster and the optimistic pondering approach 17  
18 GRIDGINKGO uses, so the GRIDGINKGO team argued that the game should be played with more 18  
19 time for GRIDGINKGO than for LEELA. Sympathetic to the circumstances, while we did not want 19  
20 GRIDGINKGO to be disadvantaged in time terms, we did not wish to take advantage of the situation 20  
21 either. 21

22 There was a bit of a discussion with programmers of other programs, not LEELA as far as I know, 22  
23 about the exact time controls to be used. I could not follow this because I was already on the plane 23  
24 at that time. Jan called me when I was in car on my way back home from the airport. We agreed 24  
25 on a compromise giving GRIDGINKGO slightly more time, 1 h vs. 45 m. From my point of view, 25  
26 the compromise was reasonable, and as the game went, LEELA did not come into time trouble: also, 26  
27 both programs could start the next round on time. In the game, GRIDGINKGO as White only reached 27  
28 a drawish position from book but it was an open position with both queens on the board. This was 28  
29 a type of position we had aimed for in our opening preparation because we thought it would suit 29  
30 a classical alpha beta searcher better than an MCTS engine. After some moves with scores close to 0.0, 30  
31 GRIDGINKGO managed to gain advantage and finally win the game. 31  
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33 I’m sorry I can’t give more details on the other games and the final playoff vs. KOMODO myself. My 33  
34 impression of the WCSC and WCCC was that there was maybe more than enough time scheduled 34  
35 between the rounds but not after the final round of each day. This is especially true for the final day of 35  
36 the WCCC where we had to leave the venue at 18:00, so that the time control for the playoff games 36  
37 had to be reduced and book preparation became difficult. 37

38 All in all, it was a really great tournament and I think, with the more widespread use of machine 38  
39 learning techniques and neural networks, the next World Championships promise to become even 39  
40 more interesting. 40  
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