

WSCC 2018: the 2018 World Speed Chess Championship

Article

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WSCC 2018: The World Speed Computer Chess Championship

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WSCC 2018 took place on July 13th at the Stockholmsmässan in Stockholm, Sweden and was organised by the ICGA as an opener before the ‘WCSC’ World Chess Software and ‘WCCC’ World Computer Chess Championships (Krabbenbos et al., 2018a/b). Using their WCCC hardware, five of the eight WCCC participants took part as in Table 1: the format was therefore five rounds at a tempo of 5'+5"/move. The venue was part of the international conferences IJCAI, ECAI, AAMAS, ICML, ICCBR and SoCS. The main sponsor was Digital Game Technology (DGT).

This was the first time for many years that this computer chess tournament had been played alongside a large artificial intelligence conference. This resulted in large crowds around the boards and, see Fig. 1, they were able to witness grandmaster-level play despite the blitz tempo. The high levels of stress on the operators, only one finger-slip away from a loss, was palpable.

During the player meeting, the number of games per round was discussed. There seemed to be plenty of time to do more games than the normal two per round for the five participants and it was decided to play three games per round. Looking back with the knowledge of how the games went, the necessary time for playing all the rounds was almost not enough. There were different reasons for this but the setup time for some of the programs was one of the main issues. JONNY in particular was allowed to play two consecutive games with the same colour to minimise its setup time.

Table 1
The participants in WSCC 2018 (CPW, 2018)

id	Program	Author(s)	State	Operator
C	CHIRON	Ubaldo Andrea Farina	IT	U A F
G	GRIDGINKGO	Frank Schneider, Kai Himstedt, Rob Hyatt	DE	Frank Schneider
J	JONNY	Johannes Zwanzger	DE	J Z
K	KOMODO	Don Dailey, Mark Lefler & Larry Kaufman	US	Erdogen Günes
S	SHREDDER	Stefan Meyer-Kahlen	DE	S M-K

The games are fully available both online and with some annotation in a pgn attached to the repository version of this report (Krabbenbos et al., 2018c). They are listed in Table 2 with the results in Tables 3-5. Only the KOMODO–SHREDDER and CHIRON–GRIDGINKGO mini-matches were tied at 1½ points each.

Of all the games, from the perspective of the spectators, KOMODO–CHIRON game 2 was perhaps the most spectacular. With **21. Rxf4** as in Fig. 2a, KOMODO exposed Black’s king at the cost of rook for knight and pawn. By move 32w, Fig. 2b, White’s king was more exposed than Black’s was but by move

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51w as in Fig. 2c, it had found shelter near its pawns from the two black rooks. Black's king was then harried nervelessly and without cease by White's RBN trio of pieces for 25 moves, first to the edge and then to the corner of irrelevance, see Fig. 2d. At this point, CHIRON lost on time a few moves before it would have lost on the board. The further playout – FRITZ14 reaches 'mate in 32m' four moves later - would have added even more to a game much appreciated by the spectators.



Fig. 1. Game 1.1 at position 25w: CHIRON–KOMODO: operators Andrea Ubaldo (l) and Erdogen Günes.

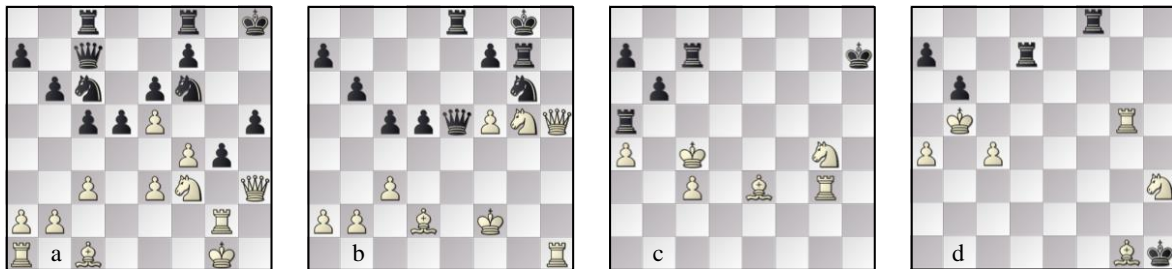


Fig. 2. Round 1.2, game 2, KOMODO–CHIRON at positions (a) 21w, (b) 32w, (c) 51w and (d) 76b.

During the tournament, two games were lost due to operator error: round 2.1 game 7, KOMODO–GRIDGINKGO and round 4.2 game 23, CHIRON–GRIDGINKGO. Such errors are never intentional and the outcome is always an unfortunate anti-climax for all concerned. This eventuality had also been discussed in the player meeting prefacing the tournament. Several other solutions were proposed but all of them seemed to have the same problem, that of determining how to solve the situation in a good way. Ultimately, everyone agreed the game lost for the program whose operator made the error.

Two games played by SHREDDER suffered from network issues: game 3.3/18, GRIDGINKGO–SHREDDER and g5.3/27, KOMODO–SHREDDER. SHREDDER was playing the game on machines in the

cloud and at certain moments, Stefan Meyer-Kahlen had trouble reaching these machines. In round five, a repair left the game drawn but in round three, this was not the case.

Given the extra prize for the runner-up, CHESSBASE14 donated by Chessbase, Sonneborn-Berger scoring was used to determine positions 2, 3 and 4. Second went to SHREDDER, third to CHIRON and fourth to the combative GRIDGINKGO which had however been commendably draw-shy and scored twice as many wins. Just off the pace set by these three, JONNY placed fifth.

Table 2
The games of WSCC 2018² with some FRITZ14 evaluations.

#	Rnd	Wh.	Bl.	#m	Res.	ECO	Opening	Egen	7m	6m	5m	Endgame notes
01	1.1	C	K	58	½-½	D35	Queen's Gambit Declined	33b	—	—	—	Clear draw at 33b, -0.38d28
02	1.2	K	C	76	1-0	D04	Queen's Pawn Game	—	—	—	—	C lost on time
03	1.3	C	K	29	½-½	D35	Queen's Gambit Declined	—	—	—	—	
04	1.1	G	J	55	½-½	C50	Giuco Piano	51b	54w	54b	—	54w/54b, n-man 'EGT' draw
05	1.2	G	J	91	½-½	C67	Ruy Lopez	58w	86b	91w	91b	86b/91w/91b, EGT draw
06	1.3	J	G	32	0-1	E90	King's Indian	—	—	—	—	
07	2.1	K	G	64	1-0	B90	Sicilian, Najdorf	—	—	—	—	64b, -0.02d27: lost by operator error
08	2.2	G	K	51	0-1	B13	Caro-Kann defence, Exchange var.	51b	—	—	—	51b, -8.26d23
09	2.3	K	G	71	1-0	D70	Neo-Grunfeld Defense	—	—	—	—	
10	2.1	S	C	39	½-½	D37	Queen's Gambit Declined	38b	—	—	—	Clear draw at 38b, 0.00d22
11	2.2	C	S	70	1-0	B48	Sicilian, Taimanov var.	—	—	—	—	CHIRON mated SHREDDER
12	2.3	S	C	38	½-½	D37	Queen's Gambit Declined	—	—	—	—	
13	3.1	J	K	50	0-1	E11	Bogo-Indian Defense	—	—	—	—	
14	3.2	J	K	65	0-1	E11	Bogo-Indian Defense	—	—	—	—	
15	3.3	K	J	48	½-½	D02	Queen's Pawn Game	28w	—	—	—	Clear draw at 28w, 0.08d23
16	3.1	G	S	66	1-0	B85	Sicilian, Scheveningen, Classical	—	—	—	—	66w: White mates in 4m
17	3.2	S	G	85	1-0	E90	King's Indian	—	80w	80b	84w	80w: KBBPKBB, <i>dtm</i> = 17m
18	3.3	G	S	60	1-0	D43	Queen's Gambit Declined, semi-Slav	59b	—	—	—	59b, +12.31d24: 'cloud' issues intervened
19	4.1	S	J	56	½-½	D45	Queen's Gambit Declined, semi-Slav	—	55b	56w	—	55b/56w, EGT draw
20	4.2	S	J	80	1-0	D45	Queen's Gambit Declined, semi-Slav	—	—	—	—	
21	4.3	J	S	61	½-½	D43	Queen's Gambit Declined, semi-Slav	—	61b	62w	—	61b/62w, EGT draw
22	4.1	G	C	34	½-½	D31	Queen's Gambit Declined	—	—	—	—	
23	4.2	C	G	101	1-0	E99	King's Indian	—	101w	—	—	EGT draw at 101w: lost by operator error
24	4.3	G	C	20	0-1	B90	Sicilian, Najdorf	—	—	—	—	
25	5.1	K	S	56	½-½	A06	Reti Opening	—	—	—	—	
26	5.2	S	K	52	½-½	A88	Dutch, Leningrad, main var. with c6	—	49b	51b	52w	49b/51b/52w, EGT draw
27	5.3	K	S	48	½-½	B48	Sicilian, Taimanov var.	28b	46w	48w	—	28b, -0.09d26: 46w/48w, EGT draw
28	5.1	J	C	60	1-0	E05	Catalan, Open, Classical line	—	—	—	—	
29	5.2	J	C	66	½-½	E05	Catalan, Open, Classical line	40b	64w	65b	—	40b, 0.37d23: 64w/65b, EGT draw
30	5.3	C	J	71	½-½	D12	Queen's Gambit Declined Slav	68w	—	—	—	Clear draw at 68w, 0.00d24

Table 3 and 4
WSCC 2017 round by round, results and progress

id	Program	r1	r2	r3	r4	r5	Score	Progress ...	r1	r2	r3	r4	r5
K	KOMODO	C: ½ 1 ½	G: 1 1 1	J: 1 1 ½	—	S: ½ ½ ½	9	K	2	5	7½	—	9
S	SHREDDER	—	C: ½ 0 ½	G: 0 1 0	J: ½ 1 ½	K: ½ ½ ½	5½	S	—	1	2	4	5½
C	CHIRON	K: ½ 0 ½	S: ½ 1 ½	—	G: ½ 1 0	J: 0 ½ ½	5½	C	1	3	—	4½	5½
G	GRIDGINKGO	J: ½ ½ 1	K: 0 0 0	S: 1 0 1	C: ½ 0 1	—	5½	G	2	2	4	5½	—
J	JONNY	G: ½ ½ 0	—	K: 0 0 ½	S: ½ 0 ½	C: 1 ½ ½	4½	J	1	—	1½	2½	4½

After the 30 games, average length 58m and 50% won, the clear winner was KOMODO with 9 points from 15. It retained its 2017 title after distancing the field early, courtesy of a 3-0 against GRIDGINKGO

² *Fgen* notes when the game first has one piece at most per side, allowing FINALGEN (Romero, 2018) to attempt a definitive evaluation, in theory if not in practice. '7m', '6m' and '5m' refer to the number of men when the position can be consulted in 'EGT' endgame tables (Bleicher, 2018; de Man et al., 2018; Lomonosov team, 2018; Tamplin, 2018).

in round 2 and a 2½-½ against JONNY in round 3, both being unique achievements. The ICGA warmly congratulates KOMODO on a fine win and thanks all participants for the action-packed contest.

Table 5
The WSCC 2017 cross-table

id	Program	K	S	C	G	J	W	D	L	Score	S-B
K	KOMODO		1½: ½ ½ ½	2: ½ 1 ½	3: 1 1 1	2½: 1 1 ½	6	6	0	9	
S	SHREDDER	1½: ½ ½ ½		1: ½ 0 ½	1: 0 1 0	2: ½ 1 ½	2	7	3	5½	33½
C	CHIRON	1: ½ 0 ½	2: ½ 1 ½		1½: ½ 1 0	1: 0 ½ ½	2	7	3	5½	32¾
G	GRIDGINKGO	0: 0 0 0	2: 1 0 1	1½: ½ 0 1		2: ½ ½ 1	4	3	5	5½	28¼
J	JONNY	½: 0 0 ½	1: ½ 0 ½	2: 1 ½ ½	1: ½ ½ 0		1	7	4	4½	

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