

# 2024 world computer chess championships: The end of an era 1974–2024

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**Abstract.** After 50 years, the final World Computer Chess Championships will be held in Santiago de Compostela, Spain, October 19–24, 2024. Most of the world’s strongest programs will be competing for the coveted Shannon Trophy. In addition to the tournaments, there will be a very special event: the *C*hess: *H*istory, *E*xperiments, and *S*earch *S*ymposium (**CHES**S), which will bring together many of the pioneers of computer chess.

The 2024 World Computer Chess Championships (WCCC) will be held October 19–24 as part of the European Conference on Artificial Intelligence (ECAI) in Santiago de Compostela, Spain (ECAI, 2024). This is the 50<sup>th</sup> anniversary of the WCCC (see Table 1), so it is only appropriate to partner with ECAI, who is also holding their 50<sup>th</sup> anniversary.

In August 1970, six chess-playing programs and their developers gathered in New York City to compete in the 1st United States Computer Chess Championship, part of the Association for Computing Machinery’s (ACM) National Conference (Schaeffer, 2020). This important event in the history of AI research began a series of annual competitions. The benchmarking of computer performance at chess continues to this day, longer than any other experiment in computer science history.

In 1974, the first World Computer Chess Championship (WCCC) was held in Stockholm as part of the International Federation for Information Processing (IFIP) conference (Hayes and Levy, 1976). The competition brought together world-class academics, company researchers, and home hobbyists to demonstrate the latest research developments in AI algorithms (see Figs 1 and 2). This event and its successors spurred on competitors to generate new ideas and hone their programs annually, in preparation for these tournaments. This activity culminated in the 1997 victory of DEEP BLUE in its exhibition match against Garry Kasparov. DEEP BLUE (and its predecessors CHIP TEST and DEEP THOUGHT) were frequent competitors in ACM chess tournaments and in two WCCCs.

Whereas in 1974, the best programs were competing at a relatively low level of chess strength (1600 on the ELO scale), today they are well beyond superhuman (3600 ELO). Chess continues to be an important application for AI research (as well as in other fields), as demonstrated by DeepMind’s breakthrough program MUZERO, a successor of ALPHAGO (Schrittwieser et al., 2020).

The World Computer Chess Championship continues to this day, with the most recent competition being held in Valencia, Spain in July 2023 (see Table 1).

After 50 years, it’s time to close this important chapter. The top programs are unbeatable by humans; making them stronger has little research value. These programs rarely make a mistake. Most games between the programs end in a draw, reinforcing the generally accepted notion that perfect play in chess will lead to a draw. The only performance result not yet achieved is to solve chess, and that won’t happen for a long time to come.

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Table 1

World Computer Chess Championship, 1974–2024. (Chess Programming Wiki, 2024)

#	Year	Location	Winner
1	1974	Stockholm, Sweden	KAISSA
2	1977	Toronto, Canada	CHESS 4.6
3	1980	Linz, Austria	BELLE
4	1983	New York, United States	CRAY BLITZ
5	1986	Cologne, West Germany	CRAY BLITZ
6	1989	Edmonton, Canada	DEEP THOUGHT
7	1992	Madrid, Spain	CHESSMACHINE
8	1995	Shatin, Hong Kong	FRITZ
9	1999	Paderborn, Germany	SHREDDER
10	2002	Maastricht, The Netherlands	JUNIOR
11	2003	Graz, Austria	SHREDDER
12	2004	Ramat-Gan, Israel	JUNIOR
13	2005	Reykjavík, Iceland	ZAPPA
14	2006	Turin, Italy	JUNIOR
15	2007	Amsterdam, The Netherlands	ZAPPA
16	2008	Beijing, China	HIARCS
17	2009	Pamplona, Spain	JUNIOR, SHREDDER, DEEP SJENG
18	2010	Kanazawa, Japan	RONDO, THINKER
19	2011	Tilburg, The Netherlands	JUNIOR
20	2013	Yokohama	JUNIOR
21	2015	Leiden, The Netherlands	JONNY
22	2016	Leiden, The Netherlands	KOMODO
23	2017	Leiden, The Netherlands	KOMODO
24	2018	Stockholm, Sweden	KOMODO
25	2019	Macau, China	KOMODO
26	2022	Vienna, Austria	KOMODO
27	2023	Valencia, Spain	STOOFVLEES
28	2024	Santiago de Compostela, Spain	To be determined



Fig. 1. The 1<sup>st</sup> World Computer Chess Championship, Stockholm, 1974. TECH 2 (Alan Baisley) versus eventual champion KAISSA (Mikhail Donskoy), with unidentified spectator. (Photo: Monroe Newborn.)



Fig. 2. David Slate (left), co-author of CHES 4.0, playing Fred Swartz (center) and Victor Berman (right), co-authors of CHAOS. The programs tied with RIBBIT for the runner-up position in the 1974 World Championship. (Photo: Monroe Newborn.)

The 2024 event will be the last ICGA World Computer Chess Championship. We expect to have most of the strongest programs participating. Further, we plan a very special session: **CHES**, the *Chess: History, Experiments, and Search Symposium (CHES)*. We are inviting many of the pioneers of computer chess to join us in beautiful Santiago de Compostela to meet old friends, reminisce about the early days of computer chess, and celebrate the incredible successes.

Please join us for this memorable and historic occasion!

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