

SHIGA WINS CHINESE-CHESS TOURNAMENT

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The computer Chinese-Chess tournament was held on September 25th and 26th, 2010 at Kanazawa, Japan, as part of the 15th Computer Olympiad. Five programs from China, the Netherlands, and Taiwan participated in the tournament. The tournament was a double round-robin match; all programs had to compete with each other in two games, one of which is played as the first player and the other as the second player. The Asian rule was adopted. Each program must complete all the moves within thirty minutes for one game. Most programs took less than 25 minutes to complete a game in this tournament. Table 1 contains the information of the participants.

So far, SHIGA has won five silver Computer Olympiad medals, namely in 2001, 2002, 2005, 2006, and 2007. However, it never won any gold medal until this year. In the 15th Computer Olympiad, it won all its games, and therefore was rewarded with the gold medal. SHIGA is designed for using a multiprocessor computer. It can search more than 20 plies by type-B search. The deep search power, background thinking, and the well-prepared opening book were the key factors of the victory. TMSK was the runner-up. The program won the gold medal in 14th Computer Olympiad. The third place was for CHIMO which won the same medal in 2009. The 4th place was for HAQIKID which is the only program from the Western world. The 5th position was for a new comer, SUNRISE. In Table 2, the final standings are given. Once more, congratulations to SHIGA that won the tournament.

Program	Author	Operator	Hardware	Country
CHIMO	Wen-Jie Tseng, Wei-Lun Kao, Hung-Hsuan Lin, Chun-Bin Hsu, I-Chen Wu, Shun-Chin Hsu	Wen-Jie Tseng	Intel Xeon 2.6G	Taiwan
HAQIKID	Harm Geert Muller	Harm Geert Muller	Intel Core 2 2.4G	Netherlands
SHIGA	Ming-Cheng Cheng, Shi-Jim Yen	Tsan-Cheng Su	AMD X6 3.3G	Taiwan
SUNRISE	Hao Cui, Jiajia Guo, Xiaowei Hu, Zhao Jianbo, Xiaomeng Yang	Tournament Staff	Intel Xeon 2.6G	China
TMSK	Bing-Jie Shen, Ruei-Ping Li, Tsan-Sheng Hsu	Bing-Jie Shen	Intel Core 2 2.8G	Taiwan

Table 1: The participants of the 15th Computer Olympiad

Program	CHIMO	HAQIKID	SHIGA	SUNRISE	TMSK	Points	Rank
CHIMO	-	1.5	0	2	0.5	4	3
HAQIKID	0.5	-	0	2	0.5	3	4
SHIGA	2	2	-	2	2	8	1
SUNRISE	0	0	0	-	0	0	5
TMSK	1.5	1.5	0	2	-	5	2

Table 2: The Results of the 15th Computer Olympiad.

SELECTED GAMES

Below we present four interesting game records from the tournament. The abbreviations for Chinese-Chess notations are as follows: the letter K stands for the King, A for the Assistant, E for the Elephant, R for the Rook, H for the Horse, C for the Cannon, and P for the Pawn (see Yen et al., 2004).

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SHIGA vs. TMSK

1. E3+5 c2=4 2. R9+1 h2+3 3. R9=6 h8+7 4. H8+9 r1=2 5. P9+1 r2+4 6. R6+3 r2=6 7. H9+8 p3+1 8. H2+1 a6+5 9. P1+1 p7+1 10. A4+5 r6-2 11. H1+2 c8+5 12. C8=2 e7+5 13. C2=4 r9=8 14. H8+7 h7+6 15. R6=4 p7+1 16. P3+1 r8+5 17. C4+3 c4-1 18. R1=4 c4=3 19. C4+1 r8-2 20. P3+1 c3+2 21. C4=7 r6+3 22. R4+4 p5+1 23. C7=4 h3+4 24. P3=4 r8+1 25. R4-1 h4+3 26. C4=5 r8+5 27. A5-4 p5+1 28. A6+5 p5+1 29. R4=5 h3-1 30. R5=3 r8-9 31. K5=6 k5=6 32. R3+3 h1+2 33. C5-2 h2-4 34. R3=4 k6=5 35. R4=6 r8+6 36. R6=1 k5=6 37. R1=4 k6=5 38. R4=3 k5=6 39. P1+1 r8=6 40. R3=4 k6=5 41. P1=2 p3+1 42. P2=3 p3=4 43. C5+2 h4+3 44. K6+1 h3-2 45. R4=2 k5=6 46. R2+3 k6+1 47. P3+1 r6-2 48. P3+1 r6=7 49. R2-1 k6-1 50. P3+1 r7-3 51. R2=3 h2-3 52. C5-1 a5+6 53. R3=6 p4=5 54. R6+1 k6+1 55. C5=4 k6=5 56. R6-1 k5-1 57. R6-3 h3+2 58. R6+4 k5+1 59. R6=4 e3+1 60. R4-1 k5-1 61. R4-1 k5+1 62. C4=5 e5-3 **1-0**

CHIMO vs. SHIGA

1. C2=5 h8+7 2. H2+3 p7+1 3. R1=2 r9=8 4. R2+6 h2+3 5. H8+7 p3+1 6. R9+1 c2+1 7. R2-2 e3+5 8. P3+1 p7+1 9. R2=3 h7+6 10. R9=4 c2+1 11. R4=2 r1+1 12. P7+1 p3+1 13. R3=7 r8+1 14. R7=4 e5+3 15. C5=4 c8=6 16. R2+7 r1=8 17. R4=7 c6+5 18. C8=4 e7+5 19. H3+4 r8+4 20. P9+1 r8=7 21. E7+5 r7+1 22. C4+3 c2=6 23. A6+5 r7=9 24. H4+2 r9-2 25. H2+3 c6-2 26. R7=2 a4+5 27. H7+6 e5-3 28. R2+2 r9=5 29. H6+4 p9+1 30. R2+3 r5=4 31. H3+4 a5-6 32. H4+3 r4-2 33. R2=4 k5+1 34. R4=7 e3-1 35. R7=1 h3+4 36. R1-1 k5-1 37. R1-3 h4+6 38. R1+4 k5+1 39. R1-6 h6+4 40. R1+5 k5-1 41. R1+1 k5+1 42. A5+6 h4-3 43. R1-1 k5-1 44. R1=4 h3+1 45. R4+1 k5+1 46. A4+5 h1-3 47. H3+1 p1+1 48. H1+3 c6=5 49. R4-4 k5=4 50. R4+3 k4-1 51. R4+1 k4+1 52. H3-4 p1+1 53. R4=8 p1+1 54. R8=5 p1=2 55. K5=4 p2=3 **0-1**

HAQIKID vs. SHIGA.

1. E3+5 c8=4 2. H2+3 p7+1 3. A4+5 h8+7 4. R1=4 h2+3 5. C2+4 p3+1 6. P3+1 p7+1 7. E5+3 r9=8 8. C2=3 e7+5 9. E7+5 h3+4 10. H3+4 h4+6 11. R4+4 r8+9 12. E5-3 c2=3 13. H8+6 r1=2 14. R9=8 r2+6 15. C8=7 r2=1 16. R8+8 a6+5 17. R8=7 c3+4 18. R7=6 e3+1 19. H6+7 r1=3 20. C7=8 r3=2 21. C8=9 e1-3 22. P5+1 r2+1 23. C9-2 p3+1 24. C9=7 r2=3 25. E3-5 r3+2 26. E5-7 r8=7 27. A5-4 r7-6 28. P5+1 p5+1 29. R4=7 e3+1 30. R7=9 p5+1 31. A6+5 e5+3 32. E7+5 r7=2 33. E5-3 p5=6 34. A5-6 c4=5 35. R6-3 r2=5 36. A4+5 r5=7 37. A5-4 h7+5 38. A6+5 h5+4 39. A5+6 r7+6 40. R9+2 h4+5 41. A6-5 h5+3 42. K5=6 c5=4 43. R6+2 a5+4 44. R9=1 r7-3 45. R1=6 r7=9 46. R6+1 r9=4 47. R6-4 h3-4 48. A5+6 h4-2 49. A4+5 h2+3 50. K6=5 p6=7 51. K5=4 p7+1 52. K4=5 p7+1 53. K5=4 p7+1 54. A5-6 h3+4 55. A6-5 p7=6 **0-1**

SUNRISE vs. SHIGA

1. P7+1 c2=3 2. C2=5 e3+5 3. H2+3 p3+1 4. R1=2 p3+1 5. H8+9 r9+1 6. R9=8 r9=4 7. A6+5 r4+2 8. P3+1 h8+9 9. H3+4 h2+4 10. C8=6 c8=7 11. C6+6 r4-2 12. H4+5 c7=6 13. P3+1 p7+1 14. R2+4 r1=3 15. R2=7 a6+5 16. H5+7 r3+2 17. R7+3 c6=7 18. A5+4 c7=3 19. R8+6 r4+6 20. H9-8 p9+1 21. P5+1 r4-3 22. R8=9 r4=3 23. E7+9 h9+8 24. R9=1 h8+7 25. A4-5 p7+1 26. C5=1 h7-5 27. R1-1 h5-7 28. C1=5 k5=6 29. C5=3 p7=6 30. P9+1 r3=2 31. H8+6 c3+1 32. C3=4 k6=5 33. C4=2 r2=4 34. H6+8 c3=5 35. E3+5 c5+1 36. C2+7 e7+9 37. C2-4 r4-1 38. R1+2 h7+8 39. R1+2 a5-6 40. C2+4 e5-7 41. H8-6 r4+5 42. P9+1 h8+7 **0-1**

Reference

Yen, S.J., Chen, J.C., Yang T.N., and Hsu, S.C. (2004). Computer Chinese Chess, *ICGA Journal*, Vol. 27, No. 1, pp. 3-18.

DOTS AND BOXES

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There were two programs competing in the Dots and Boxes tournament. The programs, authors, and results are shown in Table 1.

Place	Program	Author(s)	Country	THE SHARK	BITPANDA	Score
1	THE SHARK	William Fraser	USA	-	6	6
2	BITPANDA	Zhang Yuting and Xiong Yanchao	China	0	-	0

Table 1: Participants in the Dots and Boxes tournament and the results.