**THE 13th ANNUAL WORLD COMPUTER-BRIDGE CHAMPIONSHIP**

**Washington, D.C., USA**

**26-31 July 2009**

By Alvin Levy[[1]](#footnote-1)

The 13th annual World Computer-Bridge Championship, supported by the American Contract Bridge League (ACBL) and World Bridge Federation (WBF) was held in Washington, D.C., USA, alongside the ACBL’s summer North American Bridge Championship (NABC). Since its inception in 1997, the championship has been held every year alongside an important bridge championship. Next year’s championship will be held 10-15, October, 2010, alongside the WBF’s world championships, in Philadelphia, PA, USA. For the history and details of previous championships go to [www.computerbridge.com](http://www.computerbridge.com/) or [www.ny-bridge.com/allevy/computerbridge](http://www.ny-bridge.com/allevy/computerbridge)

**Technical remarks**

A bridge “table” consists of a central server (CS) that manages the game, and four connecting computers that “seat” the robots. The CS manages and records the play. Play proceeds automatically, with pauses for occasional manual exchanges of information when explanations of bids are necessary. The CS distributes the hands, receives and passes information from and to the robots and records the bidding and play. All the robots use identical computers. This year Intel Core 2 Duo 2.4GHz/2GH Ram desktops were used, running under Windows XP Pro. The timing of play was set at two minutes per pair per deal.

Without getting into the details, most of the robots are programmed with a combination of knowledge-based AI (sets of rules) and search-based AI (simulations).

The format for the championship event is team play. Two teams play each other, with each team consisting of four identical robots, one pair sitting North-South at one table and their teammates sitting East-West at the other table.

Ten robots were entered in the six-day event. The event started with a 28-board round robin scored on the International 30-VP scale (0-3 IMPs is 15-15; 4-10 IMPs is 16-14; up through 95+ IMPs is 25-0). The top four teams in the round robin advance, with carryover, to the 64-board semifinal KO stage. The top eight robots from the round robin play in a side event, a 112-board Individual.

**Competitors and round robin results**

Wbridge5 (Yves Costel, France) topped the round robin with 198 VPs. Jack (Hans Kuijf and Wim Heemskerk, The Netherlands) was close behind with 195 VPs, followed by Micro Bridge (Tomio and Yumiko Uchida, Japan) with 166 VPs and Shark Bridge (John Norris, Denmark) with 162 VPs. Q-Plus Bridge (Hans Leber, Germany) with 155 VPs was the only other robot in contention to advance to the semifinal KO stage. Bridge Baron (Stephen Smith, Jason Rosenfeld and George Yanakiev, USA) with 128 VPs, RoboBridge (Job Scheffers, The Netherlands) with 111 VPs and Bridge Captain (Bob Richardson, USA and Bo Haglund, Sweden) with 111 VPs rounded out the top eight to play in the Individual event. For first time entrants Ray’s Bridge Game (Raymond Reynolds, USA) and Sy Borg (Al Darman, USA) it was a learning experience, as they didn’t take a single VP against the top eight robots.

In the round robin Shark Bridge’s good decision at the five level gained 13 IMPs against Micro Bridge.

|  |  |
| --- | --- |
| Dealer: East Vul: Both | ♠ - ♥ Q 9 8 7 6 3 2 ♦ A Q 2 ♣ 7 4 2 |
| ♠ J 9 6 5 ♥ J 5 ♦ K 10 ♣ K Q 9 8 6 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ A K Q 8 4 ♥ 10 ♦ 8 7 5 ♣ A J 10 3 |
|  | ♠ 10 7 3 2 ♥ A K 4 ♦ J 9 6 4 3 ♣ 5 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Micro Bridge* | *Shark Bridge* | *Micro Bridge* | *Shark Bridge* |
|  |  | 1♠ | Pass |
| 4♠ | Dbl | Pass | 5♦ |
| Pass | 5♥ | 5♠ | Dbl |
| All Pass |  |  |  |

Good decisions were made in the bidding. West did well to preempt the auction, North did well to take an action, South did well to not pass the Dbl, and East did well to save at 5♠. 5♠x went down one for -200. At the other table the auction was 1♠-Pass-4♠-All Pass, and +620 to Shark Bridge. At the other eight tables in the round robin the final contract was 4♠.

**Individual**

After three days of intense round robin play, the contestants relaxed with a fun filled Individual. Bridge Captain was forced to withdraw, leaving a 7-robot event. After 112-boards Shark Bridge emerged as the clear winner, for the second year in a row. With an average of 54.785, the results are: 1. Shark (61.5, 56.13%); 2. RoboBridge (56.5, 51.56%); 3. Q-Plus Bridge (55.5, 50.65%); 4. Jack (54.5, 49.74%); 5/6 Micro Bridge (53.5, 48.83%); 5/6 Wbridge5 (53.5, 48.83%); 7. Bridge Baron (48.5, 44.26%).

**Semifinals**

The major event continued on the fourth day. The semifinal lineup saw Wbridge5, finishing first in the round robin, playing fourth place finisher, Shark Bridge. Wbridge5 started with a 25 IMP carryover, the difference in VPs in their head-to-head round robin match. Wbridge5 beat Shark Bridge 116-8 IMPs (25-0 VPs) in their round robin match. In the other semifinal match, second place finisher in the round robin, Jack, was pitted against third place finisher, Micro Bridge. Jack started with a 12 IMP carryover, beating Micro Bridge 70-37 IMPs (21-9 VPs) in their round robin match.

In the semifinal matches, Wbridge5 easily defeated Shark Bridge 232-105, and Jack overcame an 18 IMP semifinal deficit with two boards to go, beating Micro Bridge, 126-123.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **carryover** | **1-16** | **17-32** | **33-48** | **49-64** | **Total** |
| **Wbridge5** | **25** | **24** | **34** | **59** | **90** | **232** |
| **Shark Bridge** |  | **18** | **34** | **52** | **18** | **105** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **carryover** | **1-16** | **17-32** | **33-48** | **49-64** | **Total** |
| **Jack** | **12** | **12** | **44** | **19** | **39** | **126** |
| **Micro Bridge** |  | **30** | **37** | **38** | **18** | **123** |

Some interesting hands from the Semifinals follow.

|  |  |
| --- | --- |
| Board 25 |  |
| Dealer: North Vul: E-W | ♠ Q 10 7 6 4 3 ♥ Q J 10 ♦ 10 8 ♣ J 4 |
| ♠ J ♥ 9 8 6 2  ♦ K Q 9 ♣ K Q 7 3 2 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ 8 2 ♥ A K 7 5 4 3  ♦ 3 2  ♣ 10 8 6 |
|  | ♠ A K 9 5 ♥ - ♦ A J 7 6 5 4 ♣ A 9 5 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Micro Bridge* | *Jack* | *Micro Bridge* | *Jack* |
|  | Pass | 2♥ | Dbl |
| 4♣! | Pass | 4♥ | Pass |
| Pass | 4♠ | Pass | 6♠ |
| All Pass |  |  |  |

Micro Bridge’s 4♣ showed values in clubs and heart support. East led a club for down one. At the other three tables North opened 2♠ and South drove to 6♠, making on a ♥A lead. Micro Bridge’s 4♣ bid, along with the good decision of not leading a high heart from AK, won 14 IMPs.

|  |  |
| --- | --- |
| Board 41 |  |
| Dealer: North Vul: E-W | ♠ K J 10 3 ♥ 10 9 8 4 2 ♦ 10 4 ♣ 9 5 |
| ♠ Q 4 ♥ K J 6  ♦ A K J 9 6 ♣ J 6 4 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ A 9 7 2 ♥ A Q 3  ♦ 8 7 5  ♣ Q 10 7 |
|  | ♠ 8 6 5 ♥ 7 5 ♦ Q 3 2 ♣ A K 8 3 2 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Wbridge5* | *Shark Bridge* | *Wbridge5* | *Shark Bridge* |
| *Shark Bridge* | *Wbridge5* | *Shark Bridge* | *Wbridge5* |
|  | Pass | 1♣ | Pass |
| 1♦ | Pass | 1♠ | Pass |
| 3NT | All Pass |  |  |

♥10 lead.

How do you play a 5-3 suit missing the Q and 10? According to Edgar Kaplan’s 1973 Bridge World article, “The Deep Nine” finessing the nine is correct, assuming the defenders would sometimes falsecard, North sometimes playing the 10, from 10 x, under the ace, and South sometimes playing the 10 from 10 x x on the second lead from East. Against these opponents, if you do not see the ten on the first round of the suit or from South on the second round, you should finesse your nine, playing South to have started with Q-10-x-x.

The play was the same at both tables for the first 5 tricks. Declarer won the heart lead, cashed a high diamond, led a heart to dummy and finessed in diamonds, losing to North’s ♦10. North returned a club to South’s ♣K. Against Shark Bridge, Wbridge5 returned a spade and the defense had to prevail with two spades, two clubs and a diamond. Against Wbridge5, Shark Bridge didn’t find the spade return and Wbridge5 set up a club trick for +600.

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Micro Bridge* | *Jack* | *Micro Bridge* | *Jack* |
|  | Pass | 1NT (12-14) | Pass |
| 2♣ | Pass | 2♦ | Pass |
| 3NT | All Pass |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| *Jack* | *Micro Bridge* | *Jack* | *Micro Bridge* |
|  | Pass | Pass | Pass |
| 1NT | Pass | 3NT♦ | All Pass |

Against Jack, Micro Bridge led the ♥4. Jack won in hand and led a club to the ♣10, looking for either four or five diamonds, three hearts, a spade and a club. Micro Bridge did well to duck the trick. Jack cashed a high diamond, crossed to dummy and finessed the ♦9. North won and found the club return to defeat 3NT. In human play, South would have to duck smoothly or run the risk of losing an appeal if North returns a club.

Against Micro Bridge, Jack led the ♣A and a small club. Micro Bridge finessed the ♦J, crossed to the ♥A and led a diamond intending to guarantee the contract by finesse the nine. +630 when Jack played the ♦Q.

|  |  |
| --- | --- |
| Board 52 |  |
| Dealer: West  Vul: Both | ♠ 5 ♥ 9 5 3 ♦ Q 7 3 ♣ K 10 9 7 5 4 |
| ♠ K J 10 8 2 ♥ 4  ♦ K J 8 6 ♣ J 8 3 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ 7 6 4 3 ♥ A 8  ♦ 10 9 5 4  ♣ Q 6 2 |
|  | ♠ A Q 9 ♥ K Q J 10 7 6 2 ♦ A 2 ♣ A |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Jack* | *Micro Bridge* | *Jack* | *Micro Bridge* |
| Pass | Pass | Pass | 2♦(1) |
| Pass | 2♥(2) | Pass | 3♥ |
| Pass | 4♠(3) | Pass | 4NT |
| Pass | 5♦(4) | Pass | 6♥ |
| All Pass |  |  |  |

(1) strong hand; (2) 0-5 hcp; (3) singleton; (4) 0 keycards

|  |  |  |  |
| --- | --- | --- | --- |
| *Micro Bridge* | *Jack* | *Micro Bridge* | *Jack* |
| Pass | Pass | Pass | 2♦(1) |
| Pass | 2♥(2) | Pass | 2♠(3) |
| Pass | 2NT(3) | Pass | 3♥(3) |
| Pass | 4♦(4) | Pass | 4♥(5) |
| All Pass |  |  |  |

(1) strong hand; (2) 0-5 hcp; (3) relay to have 3♥ forcing; (4) 6-8 support point, at least 2 trumps; (5) a simulation showed 6♥ was not a good bet

The only defense to beat the slam is ♥A and a heart continuation. Jack led a spade and Micro Bridge ruffed two spades and discarded a diamond on the ♣K before leading trump, +1430 and 13 IMPs to Micro Bridge.

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Shark Bridge* | *Wbridge5* | *Shark Bridge* | *Wbridge5* |
| Pass | Pass | Pass | 2♦(1) |
| Pass | 2♥(2) | Pass | 4♥ |
| Pass | 6♥ | All Pass |  |

(1) strong hand; (2) 0-5 hcp

|  |  |  |  |
| --- | --- | --- | --- |
| *Wbridge5* | *Shark Bridge* | *Wbridge5* | *Shark Bridge* |
| Pass | Pass | Pass | 2♣ |
| Pass | 2♦(1) | Pass | 2♥ |
| Pass | 3♥(2) | Pass | 4NT |
| Pass | 5♦(3) | Pass | 6♥ |
| All Pass |  |  |  |

(1) waiting; (2) values; (3) 0 or 3 key cards

Against Shark Bridge, Wbridge5 found the winning defense of the ♥A and a heart continuation. Shark Bridge took the only play to make 6♥, finessing in spades, for -100. Against Wbridge5, Shark Bridge also led the ♥A, but failed to continue a trump, +1430 and 17 IMPs to Wbridge5.

With two boards to play, Micro Bridge was up by 18 IMPs and poised to upset Jack.

|  |  |
| --- | --- |
| Board 63 |  |
| Dealer: South Both: N-S | ♠ K 9 8 5 4 ♥ 9 7 5 ♦ J 7 6 ♣ 10 4 |
| ♠ J 10 ♥ A K Q 6  ♦ Q 10 9 5 ♣ 9 7 6 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ Q 7 6 3 2 ♥ J 3 2  ♦ 4 3 2  ♣ J 3 |
|  | ♠ A ♥ 10 8 4 ♦ A K 8 ♣ A K Q 8 5 2 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Micro Bridge* | *Jack* | *Micro Bridge* | *Jack* |
|  |  |  | 2♦(1) |
| Pass | 2♥(2) | Pass | 3NT |
| All Pass |  |  |  |

1. strong hand; (2) 0-5 hcp

|  |  |  |  |
| --- | --- | --- | --- |
| *Jack* | *Micro Bridge* | *Jack* | *Micro Bridge* |
|  |  |  | 2♣ |
| Pass | 2♦(1) | Pass | 3♣ |
| Pass | 3♠ | Pass | 4♣ |
| All Pass |  |  |  |

(1) waiting

Jack did well to reach 3NT and was rewarded when hearts broke 4-3, while Micro Bridge was down one in 4♣. 12 IMPs to Jack reduced Micro Bridge's lead to 6 IMPs with one board to play. In the other semifinal match, Shark Bridge won 10 IMPs when it reached 3NT (2♣-2♦; 3♣-3♠; 3NT-Pass) while Wbridge5 rested *too comfortably*, in 3♣ [2♣ (22-23 total points)-2♦; 3♣-Pass].

|  |  |
| --- | --- |
| Board 64 |  |
| Dealer: West Both: E-W | ♠ 8 7 4 ♥ K Q J 6 4 3 2 ♦ J 5 ♣ 6 |
| ♠ K 9 2 ♥ 8 5  ♦ A K 10 6 2 ♣ J 10 9 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ A Q J 6 5 ♥ 10 9  ♦ 9 3  ♣ A 5 4 3 |
|  | ♠ 10 3 ♥ A 7 ♦ Q 8 7 4 ♣ K Q 8 7 2 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Micro Bridge* | *Jack* | *Micro Bridge* | *Jack* |
| Pass | 4♥ | All Pass |  |

|  |  |  |  |
| --- | --- | --- | --- |
| *Jack* | *Micro Bridge* | *Jack* | *Micro Bridge* |
| 1♦ | 3♥ | 3♠ | Pass |
| 4♠ | Pass | Pass | 5♥ |
| Dbl | All Pass |  |  |

In the other match, the auctions were identical to the above second table. The light but sound 1♦ opening led to reaching the good, but unmakable, 4♠ contact. 4♥ was down two for -100 and 5♥x was down three, for -500, +400 for Jack. The 9 IMP pickup put Jack ahead by 3 IMPs at the wire.

**Final**

Jack and Wbridge5 had a low scoring final, with Jack regaining the title it lost three years ago.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **carryover** | **1-16** | **17-32** | **33-48** | **49-64** | **Total** |
| **Wbridge5** |  | **39** | **23** | **17** | **15** | **94** |
| **Jack** |  | **29** | **21** | **35** | **23** | **108** |

If Wbridge5 made a game on the penultimate board, then it would be 1 IMP down with one board to play.

|  |  |
| --- | --- |
| Board 63 |  |
| Dealer: South Both: N-S | ♠ J 8 5 ♥ K 9 8 3 ♦ 10 4 ♣ K 10 9 7 |
| ♠ 8 7 4 2 ♥ A  ♦ K J 9 6 5 3 ♣ 3 | |  |  |  | | --- | --- | --- | |  | N |  | | W |  | E | |  | S |  | | ♠ Q 6 ♥ Q J 10 5 2  ♦ A 8  ♣ A Q J 6 |
|  | ♠ A K 3 ♥ 7 6 4 ♦ Q 7 2 ♣ 8 5 4 2 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| West | North | East | South |
| *Jack* | *Wbridge5* | *Jack* | *Wbridge5* |
|  |  |  | Pass |
| Pass | Pass | 1♥ | Pass |
| 1♠ | Pass | 2♣ | Pass |
| 2♦ | Pass | 2NT |  |
| 3♦ | All Pass |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| *Wbridge5* | *Jack* | *Wbridge5* | *Jack* |
|  |  |  | Pass |
| Pass | Pass | 1♥ | Pass |
| 1♠ | Pass | 2♣ | Pass |
| 2♦ | Pass | 3NT | Pass |
| 4♦ | Pass | 5♦ | All Pass |

Everyone knows that 3NT ends the auction. Every human, that is. Robots override their partner if their conclusions are different, and there are no hard feelings. 3NT is a lucky make, but 5♦ went down two. With an easy 3NT on the last board, bid and made at both tables, Jack regained the title 108-94.

Congratulations to Hans Kuijf, the developer of Jack, who had some nervous moments watching his creation survive two close well-played matches.

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