

## 1. Performance:

The results of the tournament are shown in Table below:

Match #	Opponent	AB_Improved	AB_Custom	AB_Custom_2	AB_Custom_3
		Won   Lost	Won   Lost	Won   Lost	Won   Lost
1	Random	7   3	8   2	9   1	9   1
2	MM_Open	8   2	8   2	6   4	6   4
3	MM_Center	8   2	9   1	9   1	7   3
4	MM_Improved	6   4	6   4	6   4	5   5
5	AB_Open	4   6	5   5	6   4	6   4
6	AB_Center	7   3	6   4	6   4	6   4
7	AB_Improved	4   6	4   6	5   5	4   5
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Win Rate:		62.9%	65.7%	67.1%	61.4%

As we can see, player's agent has higher performance compared to the ones of opponents, and among them, the AB\_Custom\_2 which uses the difference between player's choice and opponent's choice as the evaluation function has the highest performance.

## 2. Conclusion:

The evaluation function AB\_Custom\_2 is recommended due to the reasons as follows,

- (1) AB\_Custom\_2 has highest win rate compared to other functions;
- (2) The complexity is not high compared to other functions;
- (3) Since AB\_Custom\_2 considered not only the player's performance, but also the opponent's performance, which is a "net" score of the current state.