I tested 3 different heuristics.

First one is “own_moves^2 - opp_moves^2”. This is better than the “Improved” evaluation function because it will flavor the state of less opp_moves. For example, own_moves versus opp_moves is better in 3 vs 1, rather than 4 vs 2, even though the move difference is same 2. The tournament result of this function is 66.07% while that of “Improved” one is 68.21%.

Second one is “1/(opp_moves+1)*own_moves”. This function does not care about the move difference, but try to penalize opp_moves and reward own_moves. But it fails to evaluate the game state effectively when own_moves is 0 because it will always return 0. The tournament result is 70.71%.

Third one is “1/(opp_moves+1)+own_moves”. It is to solve the shortcoming of the second function. It is still able to evaluate the game state even own_moves is 0. The tournament result is 72.14%

The third one is the best. So I have chosen the third one to submit.