



Reykjavík University Fall 2017

SC-T-732-GAPL

General Game Playing

Monte Carlo Tree Search

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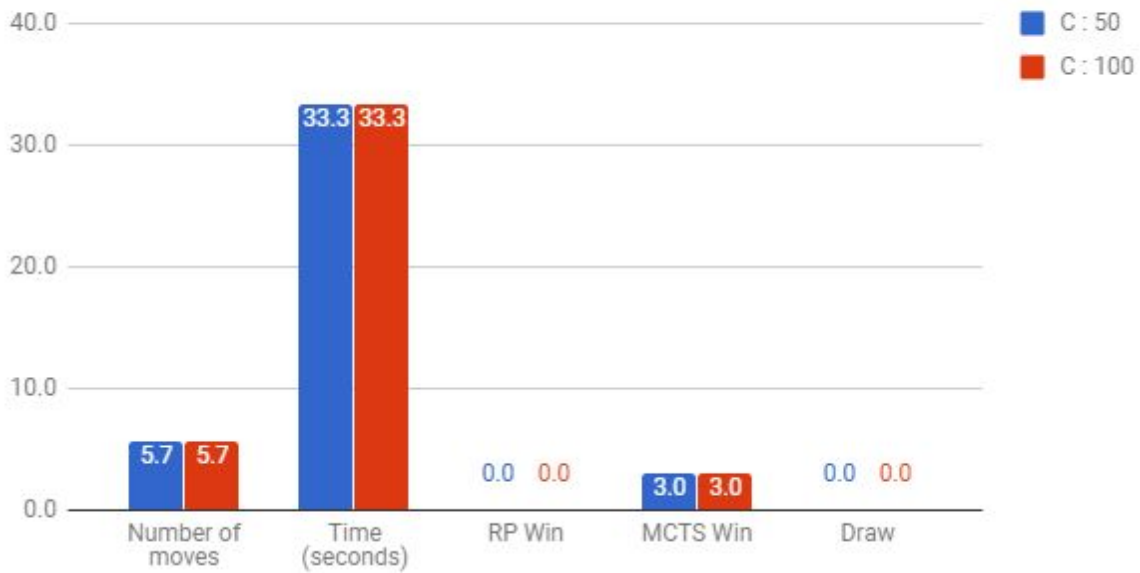
Pétur Kristófer Oddsson

Teacher
Stephan Schiffel

Comparison on different C values [50, 100] and average score on three iterations, play clock 5 seconds, start clock 5 seconds and RP is random player.

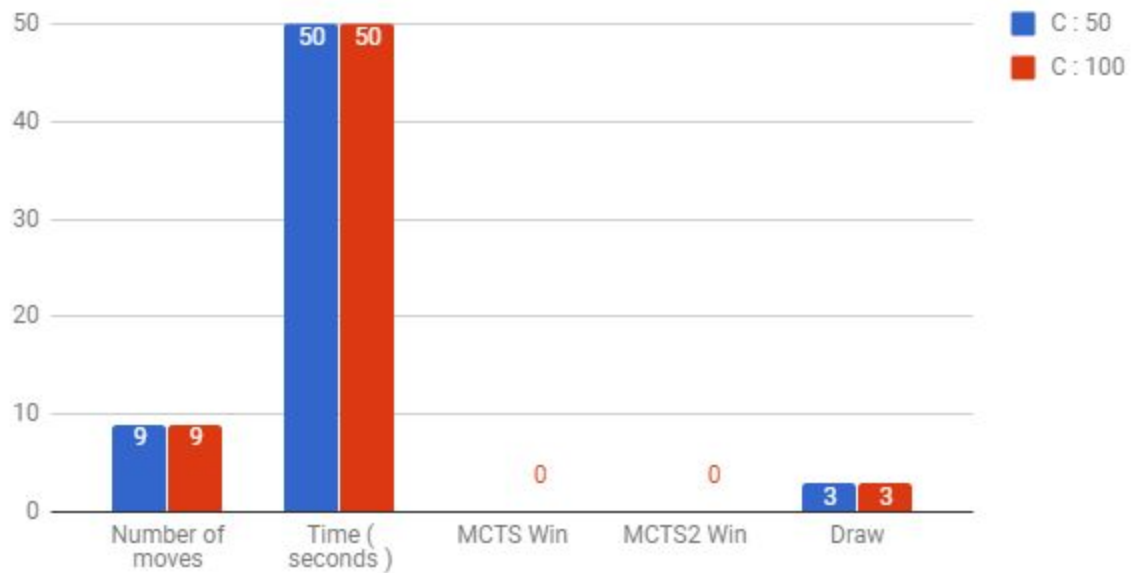
TicTacToe

MCTS vs RP



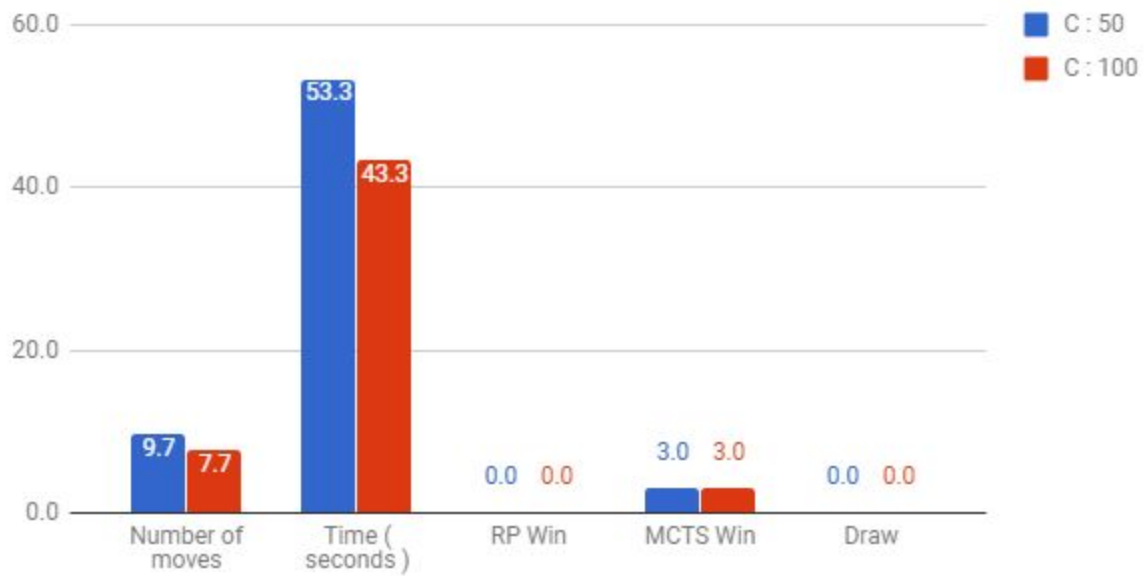
TicTacToe

MCTS vs MCTS2



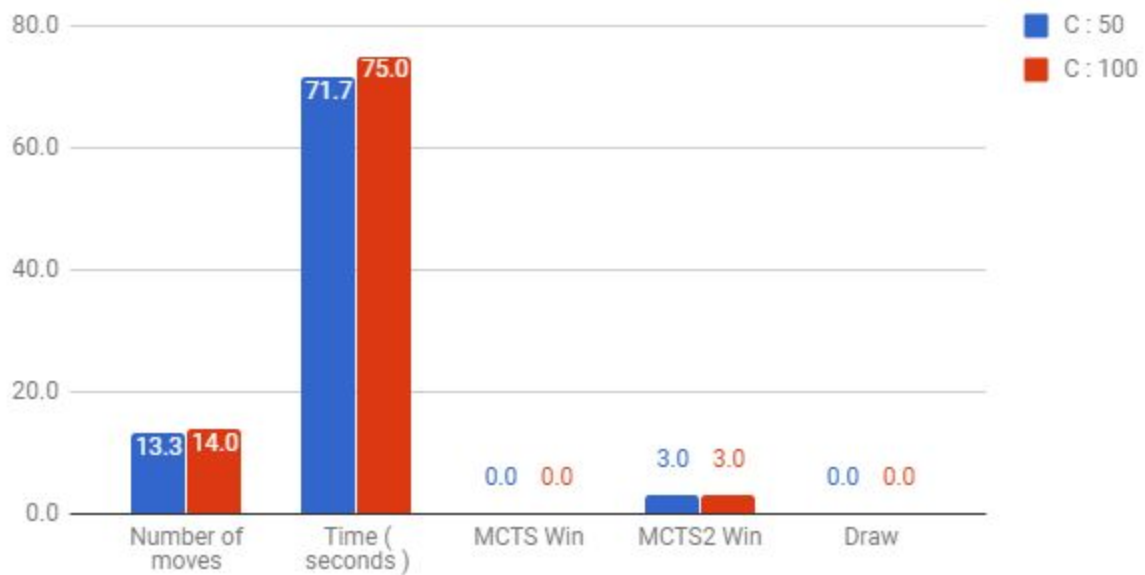
nim2

MCTS vs RP



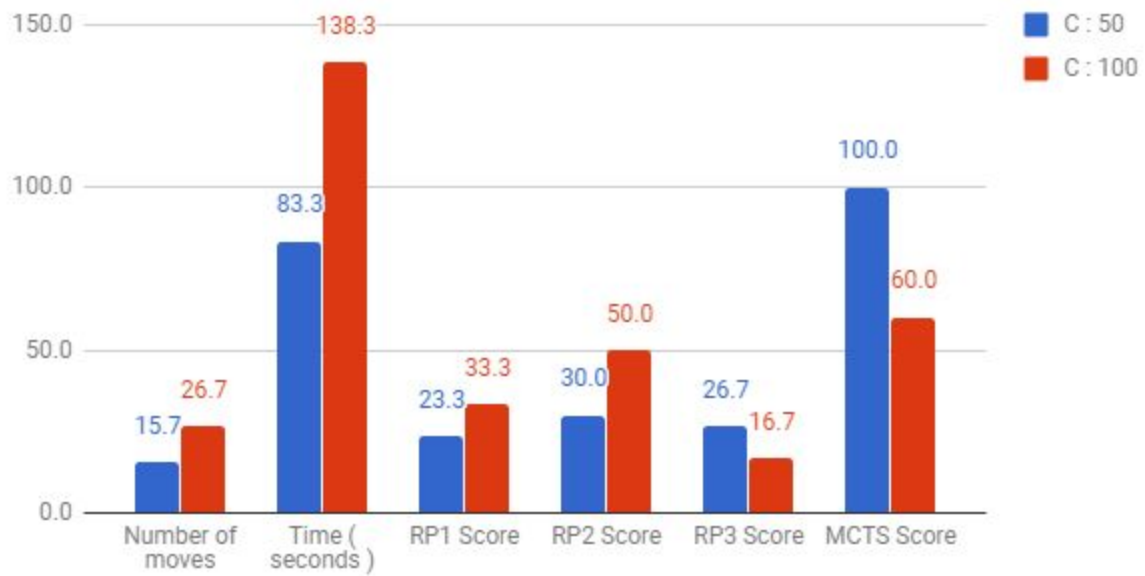
nim2

MCTS vs MCTS2



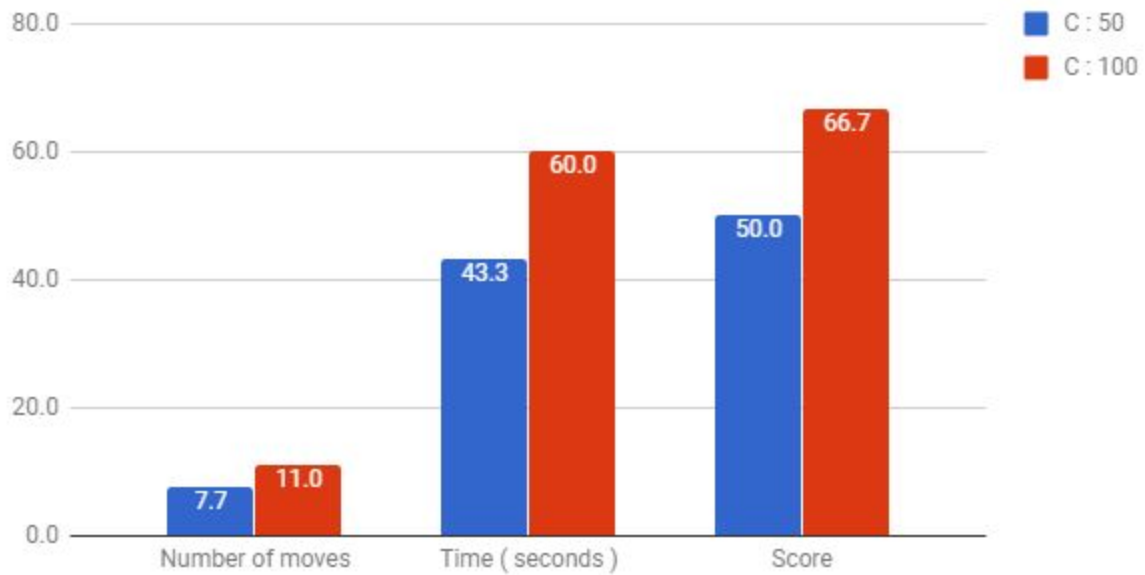
4pttc

MCTS vs RP vs RP vs RP



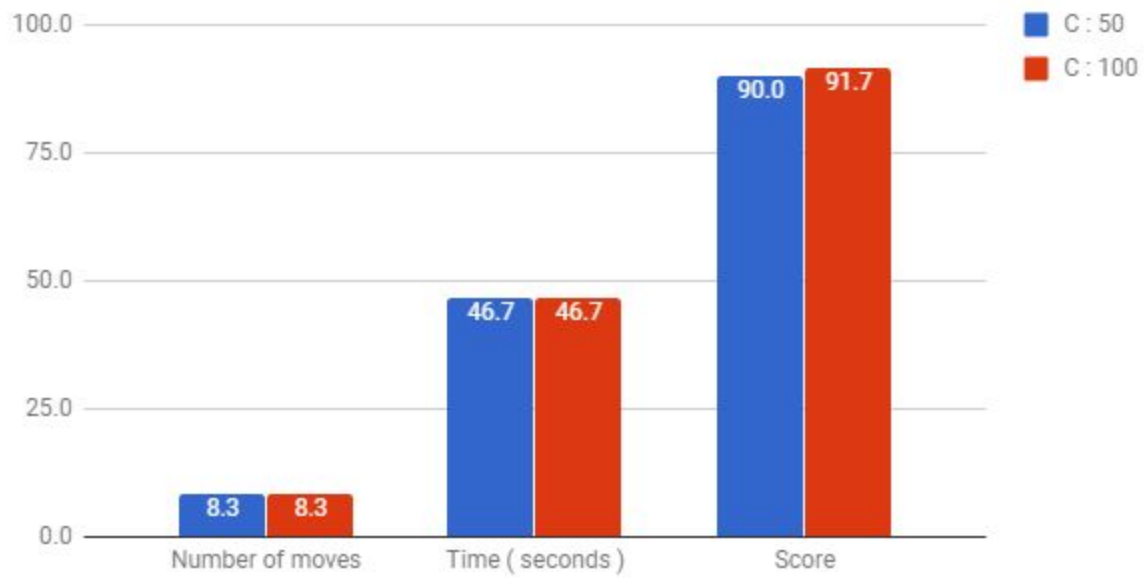
Asteroids

MCTS SP



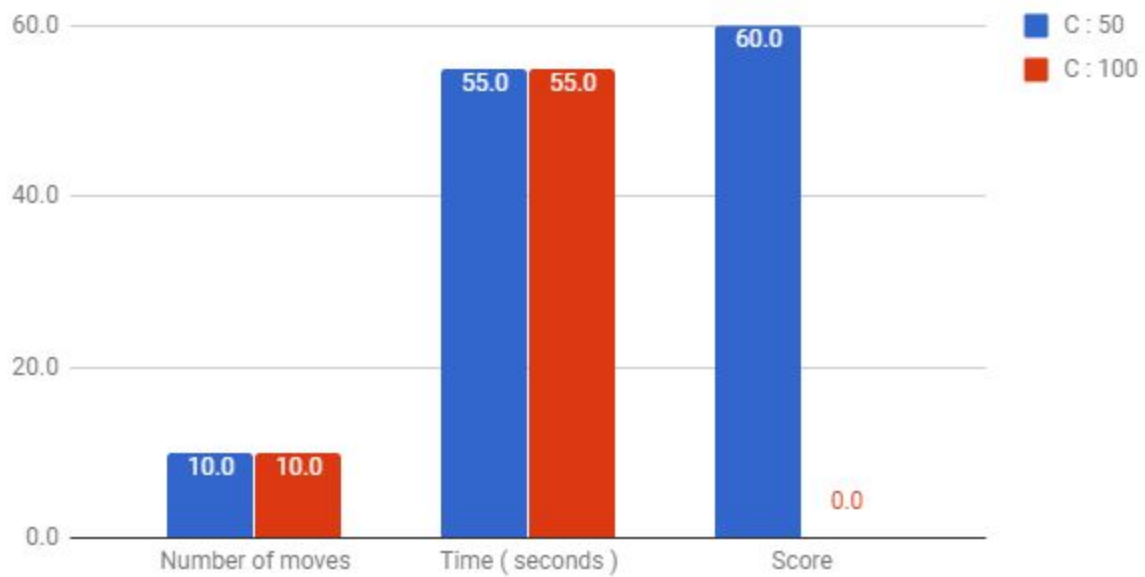
Pancakes

MCTS SP



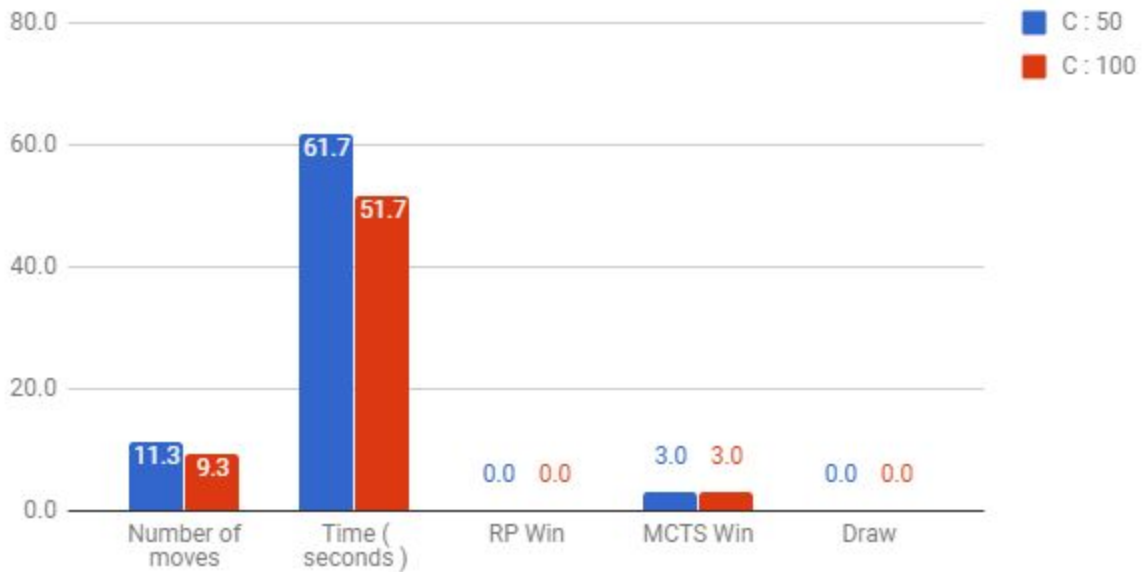
Queens

MCTS SP



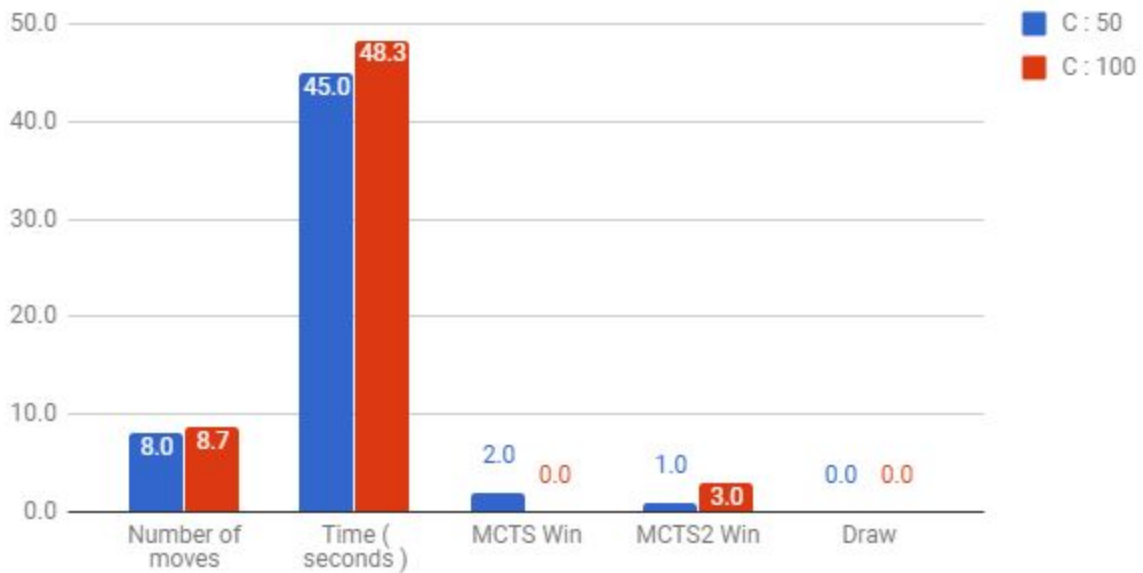
Bidding TicTacToe

MCTS vs RP



Bidding TicTacToe

MCTS vs MCTS2



There seems to be a pattern between lower C value and multiplayer games that improves the score value.