CS TF1 TF2 Predator Prober 4 Handshake Winner21 Hard Prober Fortress4 Ripoff Tester Grudger TF3 Davis Retaliate 3 MEM2 Forgetful Grudger Retaliate Retaliate 2 Limited Retaliate 3 EvolvedLookerUp1\_1\_1 Fool Me Once Limited Retaliate Limited Retaliate 2 Inverse Punisher Punisher Forgiver Meta Hunter HTfT 2TfT Spiteful Tit For Tat Inverse Winner12 Shubik **Evolved ANN Evolved ANN 5** PSO Gambler 1 1 1 Thumper Evolved FSM 16 Noise 05 Forgetful Fool Me Once Omega TFT PSO Gambler Mem1 Level Punisher PSO Gambler 2\_2\_2 Adaptive Pavlov 2006 PSO Gambler 2\_2\_2 Noise 05 Fortress3 Evolved ANN 5 Noise 05 Gradual Resurrection Evolved HMM 5 Adaptive Pavlov 2011 EvolvedLookerUp2\_2\_2 CTfT TfT Adaptive Tit For Tat FTfT Nice Average Copier Worse and Worse 3 Evolved FSM 16 Soft Joss ShortMem Soft Go By Majority: 5 Doubler General Soft Grudger Soft Grudger Remorseful Prober Once Bitten **Revised Downing** Prober 2 ZD-GTFT-2 ZD-GEN-2 VeryBad GrudgerAlternator Slow Tit For Two Tats 2 Evolved FSM 4 Soft Go By Majority: 10 Soft Go By Majority: 20 Soft Go By Majority: 40 HTf2T Soft Go By Majority Firm But Fair **GTFT** Eatherley Appeaser **WSLS** Math Constant Hunter Slow Tit For Two Tats Tf2T Grumpy Adaptive Grofman **Gradual Killer** Worse and Worse 2 Stochastic WSLS Sneaky Tit For Tat Stochastic Cooperator ALLCorALLD **Eventual Cycle Hunter** Meta Hunter Aggressive ZD-SET-2 Defector Better and Better Pun1 Average Copier Raider Cautious QLearner **Hesitant QLearner** Arrogant QLearner Risky QLearner Nydegger SelfSteem Aggravater Random Hunter Cycle Hunter Calculator Random ZD-Extort-4 **Defector Hunter** Alternator Hunter Feld Cooperator Tullock EasyGo Fool Me Forever Desperate Worse and Worse Cycler DDC ThueMorseInverse ZD-Extort-2 v2 ZD-Extort-2 ThueMorse Alternator Cooperator Hunter Cycler DC Cycler CCCDCD Cycler CCD AntiCycler Prober 3 Cycler CCCD Cycler CCCCCD Tricky Cooperator Willing Negation Prober Joss Naive Prober Bully π φ Anti Tit For Tat SolutionB5 Hard Go By Majority: 10 Hopeless Hard Go By Majority: 20 Hard Go By Majority: 40 Tricky Defector Hard Go By Majority Hard Go By Majority: 5 WShLSt Suspicious Tit For Tat Opposite Grudger SolutionB1 0.4 0.0 0.2

0.6

1.0