New Experiments

June 6, 2018

.5/.7 Instance

plots plots

 $\ \, \textbf{Vary Warm Start} \, + \, \textbf{Effective end of game} \,$

Here we vary

Results for Needle In Haystack - 0.5 HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.54 (0.02)	0.62 (0.02)	0.64 (0.02)	0.66 (0.02)	0.64 (0.02)	0.64 (0.02)	0.61 (0.02)
	<u>eeog</u>	eeog	<u>eeog</u>	eeog	eeog	eeog	eeog
	avg: 49	avg: 140	avg: 180	avg: 190	avg: 210	avg: 240	avg: 250
	med: 0	med: 1	med: 7	med: 15	med: 24	med: 62.5	med: 26
TS vs DEG	0.53 (0.03)	0.58 (0.02)	0.59 (0.02)	0.61 (0.02)	0.6 (0.02)	0.58 (0.02)	0.53 (0.02)
	eeog	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 37	avg: 80	avg: 100	avg: 130	avg: 150	avg: 180	avg: 240
	med: 0	med: 0	med: 0	med: 4	med: 10	med: 31	med: 17
DG vs DEG	0.5 (0.02)	0.47 (0.02)	0.47 (0.02)	0.44 (0.02)	0.46 (0.02)	0.44 (0.02)	0.45 (0.02)
	<u>eeog</u>	eeog	eeog	eeog	eeog	eeog	<u>eeog</u>
	avg: 130	avg: 240	avg: 300	avg: 300	avg: 350	avg: 470	avg: 570
	med: 3	med: 10	med: 47	med: 61	med: 114	med: 194	med: 303.5

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Results for Heavy Tail HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.46 (0.03)	0.37 (0.02)	0.32 (0.02)	0.31 (0.02)	0.33 (0.02)	0.43 (0.02)	0.51 (0.02)
	<u>eeog</u>	eeog	<u>eeog</u>	eeog	<u>eeog</u>	<u>eeog</u>	eeog
	avg: 11	avg: 40	avg: 44	avg: 53	avg: 57	avg: 85	avg: 120
	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0
TS vs DEG	0.45 (0.03)	0.35 (0.02)	0.32 (0.02)	0.3 (0.02)	0.32 (0.02)	0.44 (0.02)	0.6 (0.02)
	eeog	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 6.2	avg: 12	avg: 23	avg: 23	avg: 44	avg: 83	avg: 170
	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0
DG vs DEG	0.53 (0.02)	0.56 (0.02)	0.57 (0.02)	0.61 (0.02)	0.6 (0.02)	0.64 (0.02)	0.62 (0.02)
	eeog	<u>eeog</u>	eeog	eeog	<u>eeog</u>	eeog	<u>eeog</u>
	avg: 130	avg: 200	avg: 270	avg: 330	avg: 400	avg: 540	avg: 650
	med: 2	med: 1	med: 2	med: 3	med: 7	med: 181.5	med: 390

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Results for Uniform HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.5 (0.03)	0.47 (0.02)	0.45 (0.02)	0.44 (0.02)	0.42 (0.02)	0.4 (0.02)	0.42 (0.02)
	<u>eeog</u>	eeog	<u>eeog</u>	<u>eeog</u>	eeog	<u>eeog</u>	<u>eeog</u>
	avg: 48	avg: 120	avg: 180	avg: 220	avg: 270	avg: 410	avg: 550
	med: 0	med: 26.5	med: 260				
TS vs DEG	0.48 (0.03)	0.46 (0.02)	0.44 (0.02)	0.41 (0.02)	0.43 (0.02)	0.38 (0.02)	0.39 (0.02)
	eeog	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 33	avg: 94	avg: 140	avg: 170	avg: 220	avg: 390	avg: 530
	med: 0	med: 11.5	med: 239				
DG vs DEG	0.48 (0.02) eeog avg: 120 med: 2	0.49 (0.02) eeog avg: 270 med: 7	0.5 (0.02) eeog avg: 390 med: 15	0.5 (0.02) eeog avg: 450 med: 27	0.5 (0.02) <u>eeog</u> avg: 500 med: 72.5	0.51 (0.02) eeog avg: 720 med: 584.5	0.5 (0.02) <u>eeog</u> avg: 890 med: 915.5

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Various Needles in a Haystack

Results for Needle In Haystack - 0.7 HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.58 (0.02) eeog avg: 50 med: 1	0.66 (0.02) eeog avg: 170 med: 4	0.75 (0.02) eeog avg: 170 med: 9	0.79 (0.02) <u>eeog</u> avg: 170 med: 9	0.82 (0.02) <u>eeog</u> avg: 190 med: 9.5	0.93 (0.01) eeog avg: 120 med: 0	0.96 (0.007) eeog avg: 75 med: 0
TS vs DEG	0.56 (0.02) <u>eeog</u> avg: 32 med: 1	0.63 (0.02) <u>eeog</u> avg: 74 med: 1	0.67 (0.02) eeog avg: 79 med: 1.5	0.73 (0.02) eeog avg: 93 med: 2	0.73 (0.02) eeog avg: 93 med: 2	0.83 (0.02) eeog avg: 86 med: 0	0.81 (0.02) eeog avg: 82 med: 0
DG vs DEG	0.46 (0.02) eeog avg: 160 med: 2	0.44 (0.02) eeog avg: 390 med: 39	0.42 (0.02) eeog avg: 500 med: 244	0.37 (0.02) <u>eeog</u> avg: 530 med: 279.5	0.36 (0.02) <u>eeog</u> avg: 560 med: 335.5	0.34 (0.02) eeog avg: 660 med: 495	0.29 (0.02) <u>eeog</u> avg: 650 med: 464

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Results for Needle In Haystack - 0.5 HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.55 (0.02)	0.62 (0.02)	0.63 (0.02)	0.66 (0.02)	0.64 (0.02)	0.63 (0.02)	0.61 (0.02)
	<u>eeog</u>	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 50	avg: 130	avg: 170	avg: 180	avg: 200	avg: 220	avg: 240
	med: 0	med: 1	med: 5	med: 11	med: 26	med: 64	med: 29
TS vs DEG	0.53 (0.03)	0.56 (0.02)	0.59 (0.02)	0.6 (0.02)	0.6 (0.02)	0.56 (0.02)	0.53 (0.02)
	eeog	eeog	eeog	eeog	<u>eeog</u>	eeog	eeog
	avg: 33	avg: 76	avg: 120	avg: 130	avg: 140	avg: 200	avg: 230
	med: 0	med: 0	med: 1	med: 7	med: 7	med: 18.5	med: 15
DG vs DEG	0.49 (0.02) eeog avg: 100 med: 3	0.44 (0.02) eeog avg: 240 med: 12	0.47 (0.02) eeog avg: 290 med: 36	0.45 (0.02) eeog avg: 340 med: 89	0.45 (0.02) <u>eeog</u> avg: 360 med: 130.5	0.44 (0.02) eeog avg: 470 med: 174	0.44 (0.02) eeog avg: 540 med: 235.5

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Results for Needle In Haystack - 0.3 HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.53 (0.03)	0.56 (0.02)	0.49 (0.02)	0.49 (0.02)	0.5 (0.02)	0.45 (0.02)	0.45 (0.02)
	eeog	eeog	eeog	<u>eeog</u>	eeog	<u>eeog</u>	<u>eeog</u>
	avg: 22	avg: 110	avg: 120	avg: 170	avg: 210	avg: 240	avg: 250
	med: 0	med: 0	med: 2	med: 1	med: 8	med: 13.5	med: 4.5
TS vs DEG	0.54 (0.03)	0.53 (0.02)	0.48 (0.02)	0.48 (0.02)	0.49 (0.02)	0.43 (0.02)	0.41 (0.02)
	eeog	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 21	avg: 77	avg: 90	avg: 140	avg: 170	avg: 220	avg: 280
	med: 0	med: 0	med: 1	med: 2.5	med: 2.5	med: 15	med: 17
DG vs DEG	0.47 (0.02)	0.5 (0.02)	0.47 (0.02)	0.5 (0.02)	0.5 (0.02)	0.5 (0.02)	0.5 (0.02)
	eeog	<u>eeog</u>	eeog	<u>eeog</u>	<u>eeog</u>	<u>eeog</u>	<u>eeog</u>
	avg: 62	avg: 150	avg: 170	avg: 300	avg: 380	avg: 460	avg: 570
	med: 2	med: 6	med: 9	med: 27	med: 65	med: 152.5	med: 197

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Results for Needle In Haystack - 0.1 HardMax K=10

	WS = 1	WS = 5	WS = 10	WS = 15	WS = 20	WS = 50	WS = 100
TS vs DG	0.53 (0.03)	0.53 (0.03)	0.47 (0.02)	0.48 (0.02)	0.46 (0.02)	0.37 (0.02)	0.28 (0.02)
	<u>eeog</u>	<u>eeog</u>	eeog	eeog	eeog	eeog	eeog
	avg: 10	avg: 26	avg: 60	avg: 75	avg: 69	avg: 110	avg: 130
	med: 3	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0
TS vs DEG	0.52 (0.03)	0.53 (0.03)	0.47 (0.02)	0.48 (0.02)	0.43 (0.02)	0.37 (0.02)	0.31 (0.02)
	eeog	eeog	eeog	eeog	eeog	eeog	eeog
	avg: 8.5	avg: 30	avg: 56	avg: 62	avg: 81	avg: 120	avg: 170
	med: 3	med: 0	med: 0	med: 0	med: 0	med: 0	med: 0
DG vs DEG	0.49 (0.03)	0.49 (0.02)	0.52 (0.02)	0.52 (0.02)	0.5 (0.02)	0.51 (0.02)	0.53 (0.02)
	<u>eeog</u>	<u>eeog</u>	eeog	eeog	<u>eeog</u>	eeog	<u>eeog</u>
	avg: 23	avg: 46	avg: 120	avg: 140	avg: 150	avg: 280	avg: 460
	med: 5	med: 5	med: 14.5	med: 12	med: 11	med: 9	med: 12.5

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