

BENCHMARKS

Benchmarks

Benchmarks

Reproducing Results from the Zhong et. al. paper using CitcomS 3.2.0 The following plots are from data generated by CitcomS 3.2.0 on Stampede. Figure numbers correspond to Zhong et al.

Figure 5

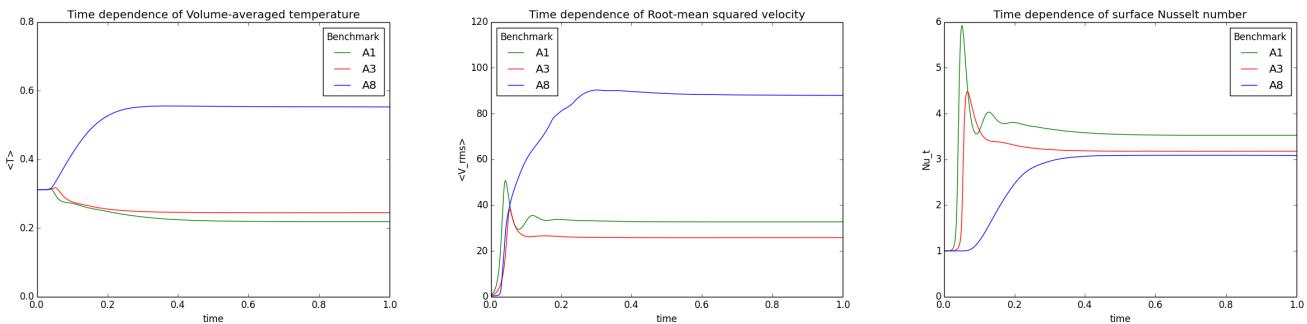
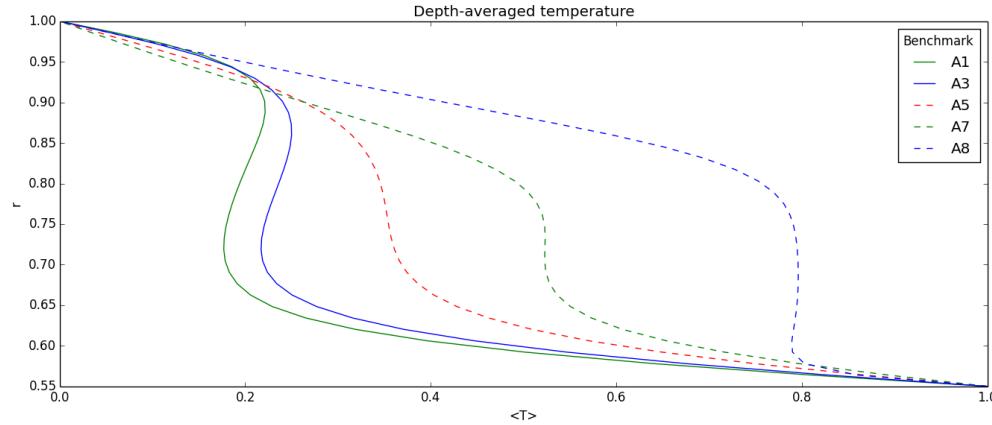


Figure 7(a)



Comparison of Values from Table 6 of the Zhong et. al. paper

Mean and standard deviations () are computed over the $t_1, t_2]$ interval

A1

Benchmark	t_1	t_2	$\langle V_{rms} \rangle$	$\langle Nu_{t=3} \rangle$	$\langle T \rangle$
A1 (Zhong et. al.)	0.7	1.0	32.66 (6e-4)	3.5126 (2e-4)	0.2171 (2e-5)
A1 (CitcomS 3.2.0)	0.7	1.0	32.68 (4e-3)	3.5263 (4e-4)	0.2187 (6e-5)

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A1 (Gaia)	?	1.0	32.65	3.5096	0.2160
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A2

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A2 (Zhong et. al.)	1.0	1.3	27.36 (1e-4)	3.2674 (1e-5)	0.2360 (3e-7)
A2 (CitcomS 3.2.0)	1.0	1.3	27.33 (6e-3)	3.2831 (1e-3)	0.2381 (1e-4)
A2 (Gaia)	?	1.0	27.19	3.2550	0.2351

A3

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A3 (Zhong et. al.)	0.6	0.9	25.85 (1e-3)	3.1724 (3e-4)	0.2432 (3e-5)
A3 (CitcomS 3.2.0)	0.6	0.9	25.77 (1e-3)	3.1768 (3e-4)	0.2447 (3e-5)
A3 (Gaia)	?	1.0	25.65	3.1601	0.2427

A4

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A4 (Zhong et. al.)	1.5	2.0	23.11 (3e-4)	2.9354 (4e-5)	0.2653 (2e-6)
A4 (CitcomS 3.2.0)	1.5	2.0	23.01 (5e-3)	2.9175 (1e-3)	0.2659 (2e-5)
A4 (Gaia)	?	1.0	22.90	2.9259	0.2663

A5

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A5 (Zhong et. al.)	1.0	1.5	22.90 (3e-3)	2.5468 (5e-4)	0.3124 (1e-5)
A5 (CitcomS 3.2.0)	1.0	1.5	22.86 (3e-2)	2.5380 (7e-4)	0.3126 (7e-5)
A5 (Gaia)	?	1.0	22.77	2.5386	0.3152

A7

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A7 (Zhong et. al.)	1.2	1.7	50.21 (8e-3)	2.7382 (5e-4)	0.5039 (1e-4)
A7 (CitcomS 3.2.0)	1.2	1.7	11.09 (5e-2)	1.8972 (5e-3)	0.3870 (3e-4)
A7 (Gaia)	?	5.0	46.83	2.4917	0.4529

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A8

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
A8 (Zhong et. al.)	0.8	1.0	87.27 (4e-2)	3.0317 (2.8e-3)	0.5461 (1e-4)
A8 (CitcomS 3.2.0)	0.8	1.0	88.01 (2e-2)	3.0889 (1e-3)	0.5530 (1e-4)
A8 (Gaia)	?	4.1	83.35	3.1328	0.5531

Comparison of Values from Table 7 of the Zhong et. al. paper.

Mean and standard deviations () are computed over the t1,t2] interval

B1

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
B1 (Zhong et. al.)	1.2	1.7	31.09 (1e-4)	3.6254 (1e-5)	0.2176 (6e-7)
B1 (CitcomS 3.2.0)	1.2	1.7	31.02 (1e-14)	3.6212 (2e-6)	0.2171 (3e-16)

B2

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
B2 (Zhong et. al.)	0.8	1.1	25.13 (7e-5)	3.3721 (2e-5)	0.2527 (2e-6)
B2 (CitcomS 3.2.0)	0.8	1.1	25.09 (2e-4)	3.3677 (2e-5)	0.2525 (5e-6)

B3

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
B3 (Zhong et. al.)	0.8	1.2	24.35 (8e-5)	3.3162 (2e-5)	0.2587 (2e-6)
B3 (CitcomS 3.2.0)	0.8	1.2	24.32 (5e-5)	3.3122 (2e-5)	0.2586 (3e-6)

B4

Benchmark	t1	t2	< V_rms >	< Nu_t >	< T >
B4 (Zhong et. al.)	1.0	1.3	22.49 (2e-5)	3.1278 (6e-6)	0.2797 (4e-7)
B4 (CitcomS 3.2.0)	1.0	1.3	22.47 (3e-14)	3.1233 (4e-6)	0.2797 (1e-16)

Benchmarking Papers

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[Zhong et. al. \(2008\)](#)

Configuration files used for the Benchmarks

[a-benchmarks.tgz](#) (998 B , uploaded by Denise Kwong 1 year 11 months ago)