

Random(4000000,2)								
# of cores	1	2	3	4	5	6	7	8
serial	1.73	—	—	—	—	—	—	—
serial_call	1.49 (1.16)	—	—	—	—	—	—	—
serial_call_cas	1.82 (0.951)	—	—	—	—	—	—	—
serial_call_membar	1.78 (0.972)	—	—	—	—	—	—	—
Cilk_cas	2.25 (0.769)	1.35 (1.28)	0.921 (1.88)	0.757 (2.29)	0.654 (2.65)	0.605 (2.86)	0.549 (3.15)	0.534 (3.24)
Cilk_membar	2.22 (0.779)	1.33 (1.30)	0.887 (1.95)	0.756 (2.29)	0.648 (2.67)	0.611 (2.83)	0.551 (3.14)	0.526 (3.29)
Cilk_R_cas	2.21 (0.783)	1.32 (1.31)	0.882 (1.96)	0.741 (2.33)	0.638 (2.71)	0.604 (2.86)	0.543 (3.19)	0.525 (3.30)
Cilk_R_membar	2.18 (0.794)	1.31 (1.32)	0.887 (1.95)	0.731 (2.37)	0.638 (2.71)	0.599 (2.89)	0.533 (3.25)	0.521 (3.32)
Tasccell_cas	1.85 (0.935)	1.67 (1.04)	0.957 (1.81)	0.821 (2.11)	0.649 (2.67)	0.630 (2.75)	0.568 (3.05)	0.532 (3.25)
Tasccell_membar	1.82 (0.951)	1.64 (1.05)	0.937 (1.85)	0.810 (2.14)	0.666 (2.60)	0.588 (2.94)	0.555 (3.12)	0.547 (3.16)
serial_call_800	1.68 (1.03)	—	—	—	—	—	—	—
serial_call_cas_800	2.04 (0.848)	—	—	—	—	—	—	—
serial_call_membar_800	2.01 (0.861)	—	—	—	—	—	—	—
Cilk_cas_800	2.71 (0.638)	1.63 (1.06)	0.906 (1.91)	0.762 (2.27)	0.685 (2.53)	0.644 (2.69)	0.590 (2.93)	0.540 (3.20)
Cilk_membar_800	2.69 (0.643)	1.61 (1.07)	1.02 (1.70)	0.815 (2.12)	0.687 (2.52)	0.615 (2.81)	0.597 (2.90)	0.548 (3.16)
Cilk_R_cas_800	2.59 (0.668)	1.54 (1.12)	0.920 (1.88)	0.753 (2.30)	0.661 (2.62)	0.622 (2.78)	0.554 (3.12)	0.554 (3.12)
Cilk_R_membar_800	2.56 (0.676)	1.52 (1.14)	0.898 (1.93)	0.738 (2.34)	0.639 (2.71)	0.627 (2.76)	0.548 (3.16)	0.520 (3.33)
Tasccell_cas_800	2.10 (0.824)	1.31 (1.32)	0.788 (2.20)	0.695 (2.49)	0.636 (2.72)	0.590 (2.93)	0.545 (3.17)	0.526 (3.29)
Tasccell_membar_800	2.07 (0.836)	1.29 (1.34)	0.938 (1.84)	0.699 (2.47)	0.630 (2.75)	0.594 (2.91)	0.544 (3.18)	0.495 (3.49)
Hypercube(21)								

# of cores	1	2	3	4	5	6	7	8
serial	1.40	—	—	—	—	—	—	—
serial_call	1.18 (1.19)	—	—	—	—	—	—	—
serial_call_cas	1.26 (1.11)	—	—	—	—	—	—	—
serial_call_membar	1.25 (1.12)	—	—	—	—	—	—	—
Cilk_cas	1.40 (1.00)	0.912 (1.54)	0.657 (2.13)	0.569 (2.46)	0.528 (2.65)	0.514 (2.72)	0.490 (2.86)	0.483 (2.90)
Cilk_membar	1.39 (1.01)	0.907 (1.54)	0.643 (2.18)	0.563 (2.49)	0.520 (2.69)	0.513 (2.73)	0.496 (2.82)	0.481 (2.91)
Cilk_R_cas	1.37 (1.02)	0.900 (1.56)	0.587 (2.39)	0.501 (2.79)	0.460 (3.04)	0.446 (3.14)	0.417 (3.36)	0.403 (3.47)
Cilk_R_membar	1.36 (1.03)	0.883 (1.59)	0.580 (2.41)	0.493 (2.84)	0.459 (3.05)	0.442 (3.17)	0.413 (3.39)	0.399 (3.51)
Tascell_cas	1.29 (1.09)	0.868 (1.61)	0.567 (2.47)	0.512 (2.73)	0.456 (3.07)	0.434 (3.23)	0.410 (3.41)	0.409 (3.42)
Tascell_membar	1.28 (1.09)	0.858 (1.63)	0.560 (2.50)	0.502 (2.79)	0.454 (3.08)	0.442 (3.17)	0.409 (3.42)	0.407 (3.44)
serial_call_800	1.17 (1.20)	—	—	—	—	—	—	—
serial_call_cas_800	1.26 (1.11)	—	—	—	—	—	—	—
serial_call_membar_800	1.24 (1.13)	—	—	—	—	—	—	—
Cilk_cas_800	1.38 (1.01)	0.920 (1.52)	0.671 (2.09)	0.561 (2.50)	0.530 (2.64)	0.518 (2.70)	0.495 (2.83)	0.484 (2.89)
Cilk_membar_800	1.37 (1.02)	0.907 (1.54)	0.658 (2.13)	0.557 (2.51)	0.529 (2.65)	0.517 (2.71)	0.494 (2.83)	0.492 (2.85)
Cilk_R_cas_800	1.37 (1.02)	0.908 (1.54)	0.598 (2.34)	0.507 (2.76)	0.460 (3.04)	0.454 (3.08)	0.424 (3.30)	0.411 (3.41)
Cilk_R_membar_800	1.36 (1.03)	0.896 (1.56)	0.586 (2.39)	0.501 (2.79)	0.457 (3.06)	0.449 (3.12)	0.418 (3.35)	0.408 (3.43)
Tascell_cas_800	1.29 (1.09)	0.861 (1.63)	0.578 (2.42)	0.502 (2.79)	0.458 (3.06)	0.441 (3.17)	0.417 (3.36)	0.409 (3.42)
Tascell_membar_800	1.28 (1.09)	0.859 (1.63)	0.571 (2.45)	0.500 (2.80)	0.454 (3.08)	0.442 (3.17)	0.418 (3.35)	0.406 (3.45)
2D-torus(2000)								

# of cores	1	2	3	4	5	6	7	8
serial	0.580	—	—	—	—	—	—	—
serial_call	0.493 (1.18)	—	—	—	—	—	—	—
serial_call_cas	0.533 (1.09)	—	—	—	—	—	—	—
serial_call_membar	0.525 (1.10)	—	—	—	—	—	—	—
Cilk_cas	0.624 (0.929)	0.400 (1.45)	0.299 (1.94)	0.255 (2.27)	0.234 (2.48)	0.227 (2.56)	0.214 (2.71)	0.211 (2.75)
Cilk_membar	0.617 (0.940)	0.393 (1.48)	0.293 (1.98)	0.249 (2.33)	0.230 (2.52)	0.224 (2.59)	0.213 (2.72)	0.210 (2.76)
Cilk_R_cas	0.591 (0.981)	0.387 (1.50)	0.267 (2.17)	0.222 (2.61)	0.202 (2.87)	0.195 (2.97)	0.181 (3.20)	0.178 (3.26)
Cilk_R_membar	0.584 (0.993)	0.377 (1.54)	0.253 (2.29)	0.217 (2.67)	0.199 (2.91)	0.190 (3.05)	0.178 (3.26)	0.171 (3.39)
Tascell_cas	0.552 (1.05)	0.367 (1.58)	0.248 (2.34)	0.222 (2.61)	0.199 (2.91)	0.192 (3.02)	0.181 (3.20)	0.174 (3.33)
Tascell_membar	0.545 (1.06)	0.364 (1.59)	0.242 (2.40)	0.218 (2.66)	0.196 (2.96)	0.190 (3.05)	0.175 (3.31)	0.173 (3.35)
serial_call_800	0.288 (2.01)	—	—	—	—	—	—	—
serial_call_cas_800	0.360 (1.61)	—	—	—	—	—	—	—
serial_call_membar_800	0.336 (1.73)	—	—	—	—	—	—	—
Cilk_cas_800	0.601 (0.965)	0.399 (1.45)	0.294 (1.97)	0.257 (2.26)	0.237 (2.45)	0.233 (2.49)	0.220 (2.64)	0.239 (2.43)
Cilk_membar_800	0.594 (0.976)	0.392 (1.48)	0.294 (1.97)	0.250 (2.32)	0.235 (2.47)	0.231 (2.51)	0.220 (2.64)	0.214 (2.71)
Cilk_R_cas_800	0.587 (0.988)	0.388 (1.49)	0.266 (2.18)	0.225 (2.58)	0.203 (2.86)	0.198 (2.93)	0.185 (3.14)	0.179 (3.24)
Cilk_R_membar_800	0.579 (1.00)	0.375 (1.55)	0.254 (2.28)	0.222 (2.61)	0.199 (2.91)	0.197 (2.94)	0.182 (3.19)	0.176 (3.30)
Tascell_cas_800	0.548 (1.06)	0.368 (1.58)	0.252 (2.30)	0.221 (2.62)	0.199 (2.91)	0.192 (3.02)	0.180 (3.22)	0.176 (3.30)
Tascell_membar_800	0.543 (1.07)	0.361 (1.61)	0.247 (2.35)	0.219 (2.65)	0.197 (2.94)	0.191 (3.04)	0.179 (3.24)	0.174 (3.33)
Bintree(24)								

# of cores	1	2	3	4	5	6	7	8
serial	0.558	—	—	—	—	—	—	—
serial_call	0.626 (0.891)	—	—	—	—	—	—	—
serial_call_cas	0.840 (0.664)	—	—	—	—	—	—	—
serial_call_membar	0.732 (0.762)	—	—	—	—	—	—	—
Cilk_cas	1.11 (0.503)	0.572 (0.976)	0.381 (1.46)	0.290 (1.92)	0.234 (2.38)	0.199 (2.80)	0.172 (3.24)	0.153 (3.65)
Cilk_membar	0.999 (0.559)	0.516 (1.08)	0.344 (1.62)	0.262 (2.13)	0.214 (2.61)	0.182 (3.07)	0.158 (3.53)	0.141 (3.96)
Cilk_R_cas	1.17 (0.477)	0.579 (0.964)	0.385 (1.45)	0.294 (1.90)	0.238 (2.34)	0.203 (2.75)	0.176 (3.17)	0.156 (3.58)
Cilk_R_membar	1.08 (0.517)	0.560 (0.996)	0.370 (1.51)	0.280 (1.99)	0.227 (2.46)	0.193 (2.89)	0.167 (3.34)	0.149 (3.74)
Tascell_cas	0.953 (0.586)	0.495 (1.13)	0.370 (1.51)	0.313 (1.78)	0.251 (2.22)	0.225 (2.48)	0.195 (2.86)	0.178 (3.13)
Tascell_membar	0.839 (0.665)	0.438 (1.27)	0.327 (1.71)	0.301 (1.85)	0.205 (2.72)	0.210 (2.66)	0.173 (3.23)	0.155 (3.60)
serial_call_800	0.627 (0.890)	—	—	—	—	—	—	—
serial_call_cas_800	0.840 (0.664)	—	—	—	—	—	—	—
serial_call_membar_800	0.732 (0.762)	—	—	—	—	—	—	—
Cilk_cas_800	1.12 (0.498)	0.572 (0.976)	0.381 (1.46)	0.289 (1.93)	0.235 (2.37)	0.199 (2.80)	0.172 (3.24)	0.153 (3.65)
Cilk_membar_800	0.999 (0.559)	0.516 (1.08)	0.344 (1.62)	0.262 (2.13)	0.214 (2.61)	0.181 (3.08)	0.158 (3.53)	0.141 (3.96)
Cilk_R_cas_800	1.16 (0.481)	0.580 (0.962)	0.386 (1.45)	0.295 (1.89)	0.239 (2.33)	0.203 (2.75)	0.177 (3.15)	0.156 (3.58)
Cilk_R_membar_800	1.07 (0.521)	0.548 (1.02)	0.371 (1.50)	0.280 (1.99)	0.227 (2.46)	0.193 (2.89)	0.167 (3.34)	0.148 (3.77)
Tascell_cas_800	0.955 (0.584)	0.494 (1.13)	0.369 (1.51)	0.339 (1.65)	0.254 (2.20)	0.222 (2.51)	0.182 (3.07)	0.182 (3.07)
Tascell_membar_800	0.838 (0.666)	0.438 (1.27)	0.327 (1.71)	0.275 (2.03)	0.213 (2.62)	0.185 (3.02)	0.165 (3.38)	0.155 (3.60)