Using	Matrix	Time / mpi	Inf Norm / mpi	Time / dgemm	Inf Norm / dgemm	Time / manual	Inf Norm / manual
./A4-mpi-1D-cblas -r	50	0.003623	89,502.0	0.000283	89,502.0	0.001390	89,502.0
./A4-mpi-1D-cblas -г	50	0.003733	89,502.0	0.000285	89,502.0	0.001273	89,502.0
./A4-mpi-1D-cblas -г	50	0.003172	89,502.0	0.000282	89,502.0	0.001216	89,502.0
./A4-mpi-1D-cblas -г	50	0.003412	89,502.0	0.000290	89,502.0	0.001217	89,502.0
./A4-mpi-1D-cblas -r	50	0.003678	89,502.0	0.000287	89,502.0	0.001214	89,502.0
./A4-mpi-1D-cblas -r	50	0.003299	89,502.0	0.000295	89,502.0	0.001214	89,502.0
./A4-mpi-1D-cblas -r	100	0.018782	353,266.0	0.002029	353,266.0	0.009716	353,266.0
./A4-mpi-1D-cblas -r	100	0.018608	353,266.0	0.002060	353,266.0	0.009452	353,266.0
./A4-mpi-1D-cblas -г	100	0.017310	353,266.0	0.002612	353,266.0	0.009707	353,266.0
./A4-mpi-1D-cblas -r	100	0.018808	353,266.0	0.002283	353,266.0	0.010504	353,266.0
./A4-mpi-1D-cblas -r	100	0.020819	353,266.0	0.002188	353,266.0	0.010953	353,266.0
./A4-mpi-1D-cblas -r	100	0.029216	353,266.0	0.002156	353,266.0	0.020780	353,266.0
JAT IIIJI TO COIGS T	100	0.023210	333,200.0	0.002254	333,200.0	0.020700	333,200.0
./A4-mpi-1D-cblas -r	50	0.003392	89,502.0	0.000284	89,502.0	0.001266	89,502.0
./A4-mpi-1D-cblas -r	50	0.003450	89,502.0	0.000285	89,502.0	0.001228	89,502.0
./A4-mpi-1D-cblas -r	50	0.003430	89,502.0	0.000289	89,502.0	0.001234	89,502.0
./A4-mpi-1D-cblas -r	50	0.003526	89,502.0	0.000286	89,502.0	0.001234	89,502.0
./A4-mpi-1D-cblas -r	50	0.003320	89,502.0	0.000286	89,502.0	0.001233	89,502.0
./A4-mpi-1D-cblas -r	50	0.003134		0.000280		0.001251	
			89,502.0		89,502.0	0.001238	89,502.0
./A4-mpi-1D-cblas -r ./A4-mpi-1D-cblas -r	100	0.017802	353,266.0	0.002062	353,266.0		353,266.0
, ,	100	0.018403	353,266.0	0.002130	353,266.0	0.009852	353,266.0
./A4-mpi-1D-cblas -r	100	0.019895	353,266.0	0.002405	353,266.0	0.010686	353,266.0
./A4-mpi-1D-cblas -r	100	0.019114	353,266.0	0.002475	353,266.0	0.010289	353,266.0
./A4-mpi-1D-cblas -r	100	0.019182	353,266.0	0.002044	353,266.0	0.009500	353,266.0
./A4-mpi-1D-cblas -r	100	0.017434	353,266.0	0.002044	353,266.0	0.010240	353,266.0
	Matrix	Time / mpi	Inf Norm / mpi	Time / dgemm	Inf Norm / dgemm	Time / manual	Inf Norm / manual
./A4-mpi-1D-chlas-i	-			dgemm	dgemm ´	manuál	manual
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50	0.003602	1,625,625.0	dgemm 0.000284	dgemm 1,625,625.0	manual 0.001235	manual 1,625,625.0
./A4-mpi-1D-cblas -i	50 50	0.003602 0.003732	1,625,625.0 1,625,625.0	dgemm 0.000284 0.000292	dgemm 1,625,625.0 1,625,625.0	manual 0.001235 0.001267	manual 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50	0.003602 0.003732 0.003618	1,625,625.0 1,625,625.0 1,625,625.0	dgemm 0.000284 0.000292 0.000298	dgemm 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206	manual 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50	0.003602 0.003732 0.003618 0.003685	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	dgemm 0.000284 0.000292 0.000298 0.000284	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50	0.003602 0.003732 0.003618 0.003685 0.003320	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	dgemm 0.000284 0.000292 0.000298 0.000284 0.000291	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009436	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494 0.018573	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009436 0.009768	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494 0.018573 0.018571	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000294 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009436 0.009768	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.019724 0.018439 0.018494 0.018573 0.018571	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000292 0.000298 0.000294 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009436 0.009436 0.009768 0.001215 0.001221	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.018571	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000284 0.000294 0.000298 0.000294 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009436 0.009768 0.001215 0.001221 0.001229	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100 50 50 50	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.018571 0.003495 0.003394 0.003525 0.003378	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000284 0.000294 0.000298 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009436 0.009436 0.009768 0.001215 0.001221 0.001229 0.001226	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100 50 50 50	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.018571 0.003495 0.003394 0.003378 0.003378	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000284 0.000294 0.000298 0.000298 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009465 0.009436 0.009436 0.009768 0.001215 0.001221 0.001229 0.001226 0.001432	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.018571 0.003495 0.003394 0.003394 0.003378 0.003452 0.003316	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000284 0.000294 0.000298 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009416 0.009465 0.009436 0.009768 0.001215 0.001221 0.001222 0.001226 0.001432 0.001217	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018573 0.018571 0.003495 0.003394 0.003525 0.003378 0.003452 0.003316 0.018835	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	0.000284 0.000294 0.000298 0.000298 0.000284 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355 0.000288 0.000288 0.000289 0.000289 0.000289 0.000289	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009768 0.001215 0.001221 0.001229 0.001226 0.001432 0.001217 0.009974	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 50 100 100 100 100 100	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.003495 0.003394 0.003525 0.003378 0.003452 0.003316 0.018835 0.019427	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	0.000284 0.000294 0.000298 0.000298 0.000291 0.000306 0.002165 0.002610 0.002037 0.002042 0.002355 0.000288 0.000288 0.000289 0.000289 0.000289 0.000289 0.000289 0.0002032	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009768 0.001215 0.001221 0.001222 0.001226 0.001432 0.001217 0.009974 0.0099459	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100 50 50 50 50 50 100 10	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.003495 0.003394 0.003525 0.003378 0.003452 0.003316 0.018835 0.019427 0.018434	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000291 0.000291 0.000291 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355 0.000288 0.000284 0.000289 0.000289 0.000289 0.000289 0.000289 0.0002032 0.002033 0.002039 0.002039	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009768 0.001215 0.001221 0.001221 0.001229 0.001226 0.001432 0.001217 0.009974 0.0099459 0.009416	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100 50 50 50 50 50 100 10	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.003495 0.003395 0.003395 0.003395 0.003316 0.018835 0.019427 0.018434 0.019503	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000291 0.000291 0.000291 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355 0.000288 0.000284 0.000289 0.000289 0.000289 0.000289 0.0002032 0.002032 0.002039 0.002044	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009768 0.001215 0.001221 0.001221 0.001221 0.001221 0.001221 0.001229 0.001226 0.001432 0.001217 0.009974 0.009974 0.009459 0.009416 0.009552	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 50 50 50 100 100 100 100 100 50 50 50 50 50 100 10	0.003602 0.003732 0.003618 0.003685 0.003320 0.003635 0.019787 0.018439 0.018494 0.018573 0.003495 0.003394 0.003525 0.003378 0.003452 0.003316 0.018835 0.019427 0.018434	1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	0.000284 0.000291 0.000291 0.000291 0.000291 0.000306 0.002165 0.002610 0.002037 0.002125 0.002042 0.002355 0.000288 0.000284 0.000289 0.000289 0.000289 0.000289 0.000289 0.0002032 0.002033 0.002039 0.002039	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001235 0.001267 0.001206 0.001413 0.001307 0.001214 0.009916 0.009465 0.009821 0.010103 0.009768 0.001215 0.001221 0.001221 0.001229 0.001226 0.001432 0.001217 0.009974 0.0099459 0.009416	manual 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0

Sheet1

	Matrix	Time / mpi	Inf Norm / mpi	Time / dgemm	Inf Norm / dgemm	Time / manual	Inf Norm / manual
./A4-mpi-1D-cblas -r	50	0.003295	89,502.0	0.000282	89,502.0	0.001214	
./A4-mpi-1D-cblas -r	50	0.003273	89,502.0	0.000293	89,502.0	0.001214	
./A4-mpi-1D-cblas -r	50	0.003426	89,502.0	0.000289	89,502.0	0.001233	89,502.0
./A4-mpi-1D-cblas -r	100	0.018321	353,266.0	0.002047	353,266.0	0.009422	
./A4-mpi-1D-cblas -r	100	0.023710	353,266.0	0.002265	353,266.0	0.009528	
./A4-mpi-1D-cblas -r	100	0.018545	353,266.0	0.002035	353,266.0	0.009973	353,266.0
./A4-mpi-1D-cblas -r	500	3.974433	8,117,937.0	0.852176	8,117,937.0	3.526722	
./A4-mpi-1D-cblas -r	500	3.781977	8,117,937.0	0.901864	8,117,937.0	3.478443	
./A4-mpi-1D-cblas -r	500	3.660107	8,117,937.0	0.813615	8,117,937.0	3.387792	
./A4-mpi-1D-cblas -r	500	3.669998	8,117,937.0	0.826524	8,117,937.0	3.432746	
./A4-mpi-1D-cblas -r	1000	25.021923	31,896,067.0	6.877664	31,896,067.0	23.402237	
./A4-mpi-1D-cblas -r	1000	25.668985	31,896,067.0	6.845725	31,896,067.0	24.111009	31,896,067.0
./A4-mpi-1D-cblas -r	1000	25.339146	31,896,067.0	7.069291	31,896,067.0	24.148800	31,896,067.0
./A4-mpi-1D-cblas -r	1000	25.378952	31,896,067.0	6.827083	31,896,067.0	24.631762	
./A4-mpi-1D-cblas -r	50	0.003793	89,502.0	0.000300	89,502.0	0.001219	89,502.0
./A4-mpi-1D-cblas -r	50	0.003746	89,502.0	0.000614	89,502.0	0.001306	
./A4-mpi-1D-cblas -r	50	0.003574	89,502.0	0.000284	89,502.0	0.001208	
./A4-mpi-1D-cblas -r	100	0.019365	353,266.0	0.002036	353,266.0	0.009537	
./A4-mpi-1D-cblas -r	100	0.022317	353,266.0	0.002033	353,266.0	0.009473	
./A4-mpi-1D-cblas -r	100	0.018096	353,266.0	0.002620	353,266.0	0.015792	
./A4-mpi-1D-cblas -r	500	3.794989	8,117,937.0	0.823255	8,117,937.0	4.208720	8,117,937.0
./A4-mpi-1D-cblas -r	500	3.594502	8,117,937.0	0.872222	8,117,937.0	3.590184	
./A4-mpi-1D-cblas -r	500	3.834893	8,117,937.0	0.837537	8,117,937.0	3.589217	8,117,937.0
./A4-mpi-1D-cblas -r	500	3.588232	8,117,937.0	0.815256	8,117,937.0	3.826735	
./A4-mpi-1D-cblas -r	1000	23.135391	31,896,067.0	6.489187	31,896,067.0	22.191726	
./A4-mpi-1D-cblas -r	1000	23.256875	31,896,067.0	6.380877	31,896,067.0	22.198515	
./A4-mpi-1D-cblas -r	1000	23.812851	31,896,067.0	6.490945	31,896,067.0	22.314222	
./A4-mpi-1D-cblas -r	1000	23.409070	31,896,067.0	6.580239	31,896,067.0	22.907298	31,896,067.0
	lMatrixl	Time / mpi	Inf Norm / mpi	Time /	Inf Norm /	Time /	Inf Norm /
(44 : 40 ! ! . :	Matrix	Time / mpi	Inf Norm / mpi	dgemm	dgemm	manual	manual
./A4-mpi-1D-cblas -i	50	0.003397	1,625,625.0	dgemm 0.000288	dgemm 1,625,625.0	manual 0.001242	manual 1,625,625.0
./A4-mpi-1D-cblas -i	50 50	0.003397 0.003611	1,625,625.0 1,625,625.0	dgemm 0.000288 0.000287	dgemm 1,625,625.0 1,625,625.0	manual 0.001242 0.001215	manual 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50	0.003397 0.003611 0.003682	1,625,625.0 1,625,625.0 1,625,625.0	dgemm 0.000288 0.000287 0.000288	dgemm 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001242 0.001215 0.001211	manual 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100	0.003397 0.003611 0.003682 0.019267	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	dgemm 0.000288 0.000287 0.000288 0.002433	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	manual 0.001242 0.001215 0.001211 0.009435	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100	0.003397 0.003611 0.003682 0.019267 0.018404	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	dgemm 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 500 500 500 500 1000 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0	0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 500 5	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0	0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 50	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0	0.000288 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002023	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000 1000 1000 50 50 50 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313 0.018587	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0	0.000288 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002023 0.002033	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.289661 3.298382 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 500 1000 1000 1000 50 50 50 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313 0.018587 0.019000	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0	0.000288 0.000288 0.000287 0.000288 0.002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002023 0.002033	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 50 50 1000 1000 1000	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313 0.018587 0.019000 3.710844	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002033 0.002073 0.834674	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.61662 22.512074 22.917504 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658 3.355016	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 100 10	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313 0.018587 0.019000 3.710844 3.587707	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002033 0.002033 0.002073 0.834674 0.818356	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616662 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658 3.355016 3.319822	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 100 10	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 23.389160 23.609556 23.316519 23.223686 0.004897 0.003305 0.018313 0.018587 0.019000 3.710844 3.587707 3.619530 3.604923	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002033 0.002033 0.002073 0.834674 0.818356	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658 3.355016 3.319822 3.347187 3.359344	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 100 10	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003305 0.018313 0.018587 0.019000 3.710844 3.587707 3.619530 3.604923 23.619057	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002023 0.002033 0.002073 0.834674 0.818356 6.392954	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658 3.355016 3.319822 3.347187 3.359344 21.995911	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 1,625,625.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0
./A4-mpi-1D-cblas -i ./A4-mpi-1D-cblas -i	50 50 50 100 100 100 500 500 500 1000 1000 1000 50 50 50 50 50 50 50 50 50 50 50 50	0.003397 0.003611 0.003682 0.019267 0.018404 0.023596 3.669566 3.575005 3.580136 3.638119 23.389160 23.609556 23.316519 23.223686 0.004897 0.003326 0.003326 0.018313 0.018587 0.019000 3.710844 3.587707 3.619530 3.604923 23.619057 24.271146 23.330612	1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0	dgemm 0.000288 0.000287 0.000288 0.0002433 0.002047 0.002019 0.818055 0.821899 0.827713 0.810202 6.553018 6.560736 6.552578 6.693635 0.000281 0.001049 0.000286 0.002023 0.002033 0.002033 0.002033 0.002033 0.002033 0.002033 0.002034 0.816740 0.818356 6.392954 6.441605 6.564853	dgemm 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0	manual 0.001242 0.001215 0.001211 0.009435 0.009442 0.012373 3.356318 3.329264 3.289661 3.298383 23.616626 22.512074 22.917504 22.248374 0.001219 0.002203 0.001210 0.009471 0.009530 0.009658 3.355016 3.319822 3.347187 3.359344 21.995911 22.635459 22.277569	manual 1,625,625.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 250,500,250,000.0 1,625,625.0 1,625,625.0 25,502,500.0 25,502,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 15,687,562,500.0 250,500,250,000.0

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