

		-O0		-O2		-O3	
CPUs	Input size	Total time [ms]	Comm time [ms]	Total time [ms]	Comm time [ms]	Total time [ms]	Comm time [ms]
1	100000	163.601	3.627	91.158	3.748	86.967	3.532
2	100000	84.714	8.316	102.513	30.485	47.663	7.93
4	100000	41.207	3.506	33.337	12.714	42.325	22.652
8	100000	21.05	3.501	13.272	3.701	12.707	3.408
16	100000	31.139	21.892	12.595	7.667	93.624	86.057
32	100000	262.727	251.962	181.164	178.656	146.944	140.604
64	100000	530.031	524.611	518.071	516.019	335.416	326.732
1	200000	346.622	7.478	190.75	7.032	185.76	7.605
2	200000	173.703	9.083	96.356	7.868	94.925	8.273
4	200000	85.591	5.602	139.183	94.391	50.611	5.289
8	200000	42.231	2.811	24.998	2.993	23.912	2.791
16	200000	72.162	54.295	23.492	13.515	43.416	32.8
32	200000	484.841	467.389	285.08	279.348	158.751	153.245
64	200000	273.851	253.894	312.913	306.27	284.782	277.71
1	500000	930.737	18.808	525.804	23.144	494.565	17.462
2	500000	468.432	22.853	265.957	19.912	257.018	18.605
4	500000	233.927	18.526	136.283	16.298	141.294	26.289
8	500000	112.915	11.251	68.448	12.396	63.139	8.868
16	500000	85.347	34.44	48.567	22.799	38.316	10.537
32	500000	265.164	208.675	336.796	319.025	176.405	148.597
64	500000	416.922	388.732	980.609	972.784	333.231	323.595
1	1000000	2022.185	47.266	1104.995	40.237	1060.219	38.236
2	1000000	1004.631	79.972	583.396	78.308	564.852	73.967
4	1000000	484.79	49.924	275.078	24.067	402.854	173.726
8	1000000	231.851	23.832	130.754	16.734	133.711	24.139
16	1000000	150.152	32.89	95.067	34.801	91.025	25.141
32	1000000	291.835	168.728	308.646	265.325	240.082	200.022
64	1000000	528.412	457.68	585.736	541.915	557.34	524.808
1	2000000	4072.06	75.418	2202.39	78.673	2190.703	78.756
2	2000000	2026.379	85.981	1185.46	104.834	1152.971	76.684
4	2000000	1005.008	90.275	573.311	55.471	570.641	75.944
8	2000000	479.657	48.059	275.958	42.545	265.439	40.598
16	2000000	293.26	32.067	174.723	47.085	199.615	75.716
32	2000000	519.201	308.751	538.16	412.859	674.621	426.373
64	2000000	1595.045	1479.004	1188.17	1105.704	775.676	695.496