

1024x1024x64x4
1024x1024x32x4
default stripe

ms

Downsampling 1024 → 512

chunk	1x1024x1024											
cores	16			32			64			128		
stripe	1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456		
read	17849 29650 17148			9752 4193 4299			7732 2651 1861			9215 1232 1349		
MPI_Gatherv	347 348 355			1706 1635 1378			6379 6172 6245			20444 19716 19773		
write	1302 1375 1316			2783 1289 2168			1796 1575 2372			2139 1804 1292		
	20275 19114 19520			14572 7406 8111			16122 10536 10613			31894 22821 22497		

chunk	64x64x64											
cores	16			32			64			128		
stripe	1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456		
read	11418 9977 2783			8267 5468 4168			7636 2403 2483			9353 2281 2340		
MPI_Gatherv	341 351 341			1576 1646 1646			6255 6243 6323			20321 20169 19900		
write	1241 1352 1282			4098 1263 1319			1887 1588 2339			1483 1525 1439		
	13683 12394 5098			14225 8662 7415			15911 10370 11279			31232 24046 23744		

MPI_Alltoallv	200	800	1800	5700
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Change chunks 1x1024x1024 → 64x64x64

cores	16			32			64			128		
stripe	1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456			1048576 134217728 268435456		
read	18646 16706 16735			9961 5110 4189			7790 1707 1762			8782 1255 1317		
write	12799 14062 13951			20982 12471 9993			18441 7804 6340			13667 6561 7100		
	32127 31540 31473			31266 18109 14831			26423 9810 8424			22658 8121 8699		