Marconi 100 GPU + OpenACC

TEST	Grid	Decomposition	NY_CPU	NZ_CPU	Tasks/node	nodes	Total tasks	Time x time step	Notes
0	256 x 256 x 257	SLAB	1	4	4	1	4	2.6856	
1	256 x 256 x 257	SLAB	4	1	4	1	4	3.0752	
2	256 x 256 x 257	SLAB	1	8	4	2	8	1.4866	
3	256 x 256 x 257	SLAB	8	1	4	2	8	1.7321	
4	256 x 256 x 257	SLAB	1	16	4	4	16	1.6868	
5	256 x 256 x 257	SLAB	16	1	4	4	16	1.8619	
6	256 x 256 x 257	SLAB	1	32	4	8	32	1.1867	
7	256 x 256 x 257	SLAB	32	1	4	8	32	1.4267	
8	256 x 256 x 257	SLAB	1	64	4	16	64	1.2293	
9	256 x 256 x 257	SLAB	64	1	4	16	64	1.274	
10	512 x 512 x 513	SLAB	1	4	4	1	4	25.9585	
11	512 x 512 x 513	SLAB	4	1	4	1	4	42.0030	
11	512 x 512 x 513	SLAB	1	8	4	2	8	13.2129	
10	512 x 512 x 513	SLAB	8	1	4	4	8	15.5638	
11	512 x 512 x 513	SLAB	1	16	4	4	16	5.8170	
12	512 x 512 x 513	SLAB	16	1	4	4	16	7.0623	
13	512 x 512 x 513	SLAB	1	32	4	8	32	3.1868	
14	512 x 512 x 513	SLAB	32	1	4	8	32	4.2162	
15	512 x 512 x 513	SLAB	1	64	4	16	64	1.9693	
16	512 x 512 x 513	SLAB	64	1	4	16	64	2.7073	

Table 1

			Z - SLAB (NY=1)				Y - SLAB (NZ=1)			
			256 x 256 x 257		512 x 512 x 513		256 x 256 x 257		512 x 512 x 513	
		SPEED-UP	TIME	SPEED-UP	TIME	SPEED-UP	TIME	SPEED-UP	TIME	SPEED-UP
CORES	NODES	IDEAL	Time	Speed-up	Time	Speed-up	Time	Speed-up	Time	Speed-up
1	1	1	2.6856	1.00000	25.9585	1.00000	3.0752	1.00000	42.0030	1.00000
2	2	2	1.4866	1.80654	13.2129	1.96463	1.7321	1.77542	15.5638	2.69876
4	4	4	1.6868	1.59213	5.8170	4.46252	1.8619	1.65165	7.0623	5.94750
8	8	8	1.1867	2.26308	3.1868	8.14563	1.4267	2.15546	4.2162	9.96229
16	16	16	1.2293	2.18466	1.9693	13.18159	1.274	2.41381	2.7073	15.51472

STRONG SCALABILITY (M100)