

Red	Orange	Orange	Orange	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow

Red	Orange	Orange	Orange	Orange	Orange
Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow

Red	Orange	Orange	Orange	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow

Red	Yellow	Orange	Orange	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Orange	Orange	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow

Red	Orange	Red	Red	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	White	Yellow	Yellow	Yellow	White
Yellow	White	White	White	White	White

Dark Red	Orange	Orange	Orange	Yellow	
Yellow	Light Yellow				
Orange	Yellow	Yellow	Yellow		
Yellow					

Red	Orange	Orange	Orange	Yellow	Red
Yellow	Yellow	Yellow	Yellow	Yellow	Orange
Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Dark Red	Orange	Orange	Orange	Light Orange	Light Orange
Light Orange	Light Orange	Light Orange	Light Orange	Light Orange	Light Orange
Red	Light Orange	Orange	Light Orange	Light Orange	Light Orange
Orange	Light Orange	Light Orange	Light Orange	Light Orange	Light Orange

Red	Orange	Yellow	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

		Q8*:Role					
		Apps	Tools	Paralelize	Tuning	Debug	OS/R
Q22*:MPI+X	OMP	0	0.72	1.4	2.2	2.9	3.6
	Pthread	4.3	5	5.7	6.5	7.2	7.9
	CUDA	8.6	9.3	10	11	11	12
	No	13	14	14	15	16	17