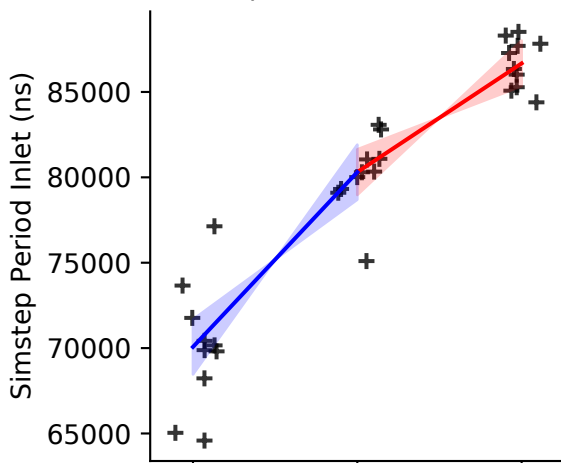
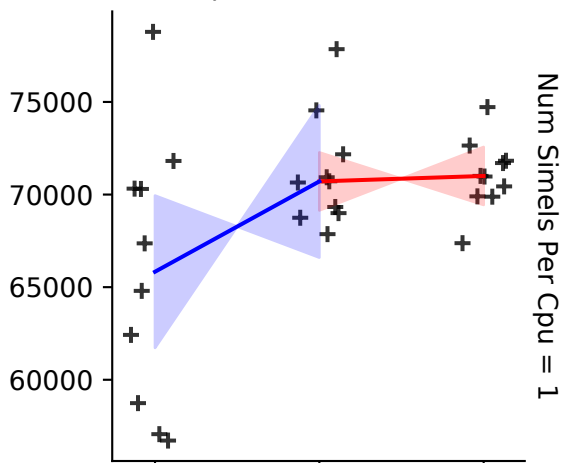


Quantile Regression

Cpus Per Node = 1



Cpus Per Node = 4



Log Num Processes	Simstep Period Inlet (ns) × 10 ⁶
2.0	1.72
2.1	1.70
2.2	1.71
2.3	1.70
2.4	1.71
2.5	1.72
2.6	1.73
2.7	1.74
2.8	1.75
2.9	1.76
3.0	1.77
3.1	1.78
3.2	1.79
3.3	1.80
3.4	1.81
3.5	1.82
3.6	1.83
3.7	1.84
3.8	1.85
3.9	1.86
4.0	1.87
4.1	1.88
4.2	1.89
4.3	1.90
4.4	1.91
4.5	1.92
4.6	1.93
4.7	1.94
4.8	1.95
4.9	1.96
5.0	1.97
5.1	1.98
5.2	1.99
5.3	2.00
5.4	2.01
5.5	2.02
5.6	2.03
5.7	2.04
5.8	2.05
5.9	2.06
6.0	2.07
6.1	2.08
6.2	2.09
6.3	2.10
6.4	2.11
6.5	2.12
6.6	2.13
6.7	2.14
6.8	2.15
6.9	2.16
7.0	2.17
7.1	2.18
7.2	2.19
7.3	2.20
7.4	2.21
7.5	2.22
7.6	2.23
7.7	2.24
7.8	2.25
7.9	2.26
8.0	2.27
8.1	2.28
8.2	2.29
8.3	2.30
8.4	2.31
8.5	2.32
8.6	2.33
8.7	2.34
8.8	2.35
8.9	2.36
9.0	2.37
9.1	2.38
9.2	2.39
9.3	2.40
9.4	2.41
9.5	2.42
9.6	2.43
9.7	2.44
9.8	2.45
9.9	2.46
10.0	2.47

Figure 10 is a line graph showing the number of simulations per CPU (Y-axis, scaled by 10^6) versus the log of the number of processes (X-axis). The graph compares two configurations: a blue line with a light blue shaded area and a red line with a light red shaded area. Both lines show an increase in simulations per CPU as the log of the number of processes increases from 2 to 3, followed by a slight decrease at log 4. The blue line is consistently higher than the red line.

Log Num Processes	Blue Line (Simulations Per CPU $\times 10^6$)	Red Line (Simulations Per CPU $\times 10^6$)
2	~1.58	~1.58
3	~1.95	~1.92
4	~1.85	~1.82