Hardware used for test: “roa” dual xeon e5-2697v2 (each 12 core & x2 HT, AVX Nominally 2.7GHz, observed 2.4
128 GiB ECC ram, NUMA; 300 GB HD
Software/OS Mlucas v20.1.1 on Canonical’s version of Ubuntu 18.04 for WSL1 on Windows 10 Pro
Test exponent 1000000007 Computation PRP with GEC
FFT selected by benchmarking 960 32 32 32 3.339 years for a single primality test

No hyperthreading specified: 0:×:2

single CPU package use expected

cores spec	logical core count	observed msec/iter	Logical cores * msec / iter	notes
0:7:2	4	460.9	1843.6	
0:11:2	6	401.5	2409.0	
0:15:2	8	221.5	1772.0	
0:23:2	12	208.6	2503.2	

dual CPU package use expected

cores spec	logical core count	observed msec/iter	Logical cores * msec / iter	notes
0:31:2	16	123	1968.0	
0:47:2	24	114	2736.0	

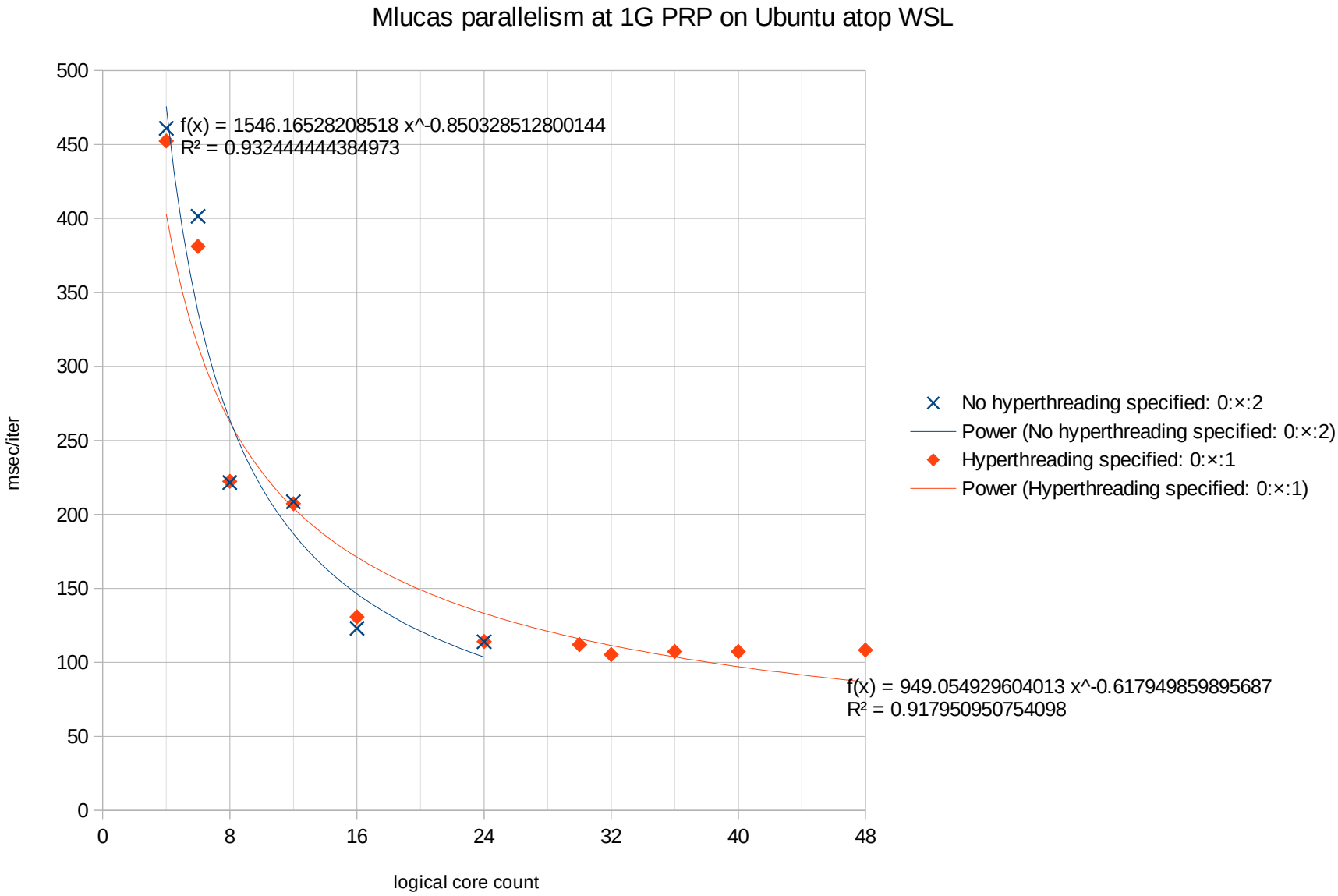
Hyperthreading specified: 0:×:1

single CPU package use expected

cores spec	logical core count	observed msec/iter	Logical cores * msec / iter	notes
0:3:1	4	452.4	1809.6	
0:5:1	6	381.2	2287.2	
0:7:1	8	222.3	1778.4	
0:11:1	12	207.2	2486.4	
0:15:1	16	130.7	2091.2	
0:23:1	24	114.1	2738.4	

dual CPU package use expected

cores spec	logical core count	observed msec/iter	Logical cores * msec / iter	notes
0:29:1	30	112	3360.0	
0:31:1	32	**105.3**	3369.6	**minimum time; power of two and a good fit to the radices of the fft**
0:35:1	36	107.4	3866.4	more logical cores made it slower
0:39:1	40	107.3	4292.0	
0:47:1	48	108.4	5203.2	more logical cores made it slower


Mlucas parallelism at 1G PRP on Ubuntu atop WSL
f(x) = 1546.16528208518 x^-0.850328512800144
R² = 0.932444444384973
f(x) = 949.054929604013 x^-0.617949859895687
R² = 0.917950950754098
msec/iter
logical core count
0
50
100
150
200
250
300
350
400
450
500
0
8
16
24
32
40
48
No hyperthreading specified: 0:×:2
Power (No hyperthreading specified: 0:×:2)
Hyperthreading specified: 0:×:1
Power (Hyperthreading specified: 0:×:1)