

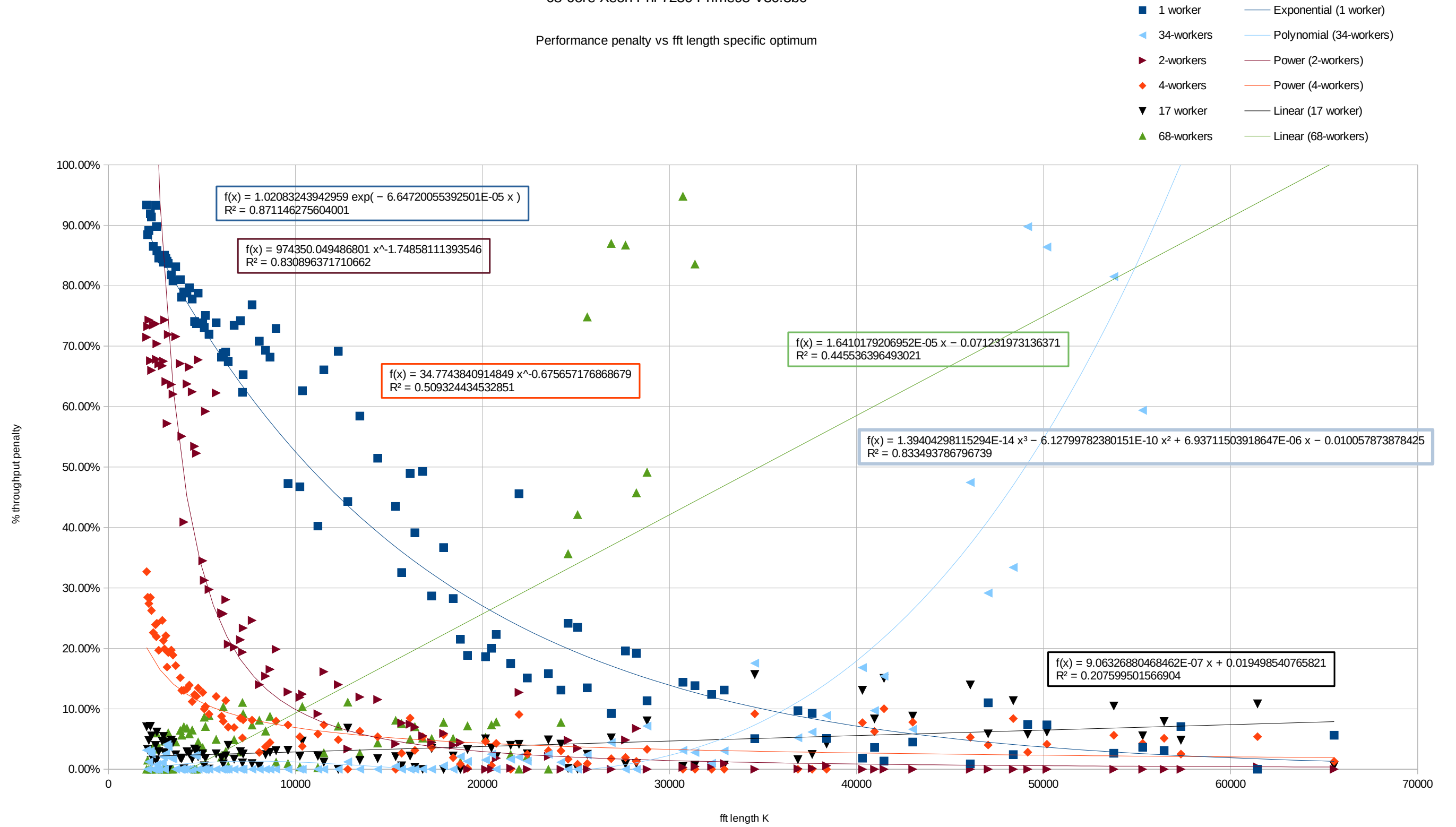
SuperMicro K1SPE motherboard Win10 Pro build 1909 x64, Prime95 V30.3b6 64-bit Intel Xeon Phi 7250 (up to 4-way hyperthread capable) 16GB in-socket system ram only  
Prime95 benchmark output, system throughput, iter/sec (more is better for a given fft length) HT throughputs below are the highest observed; usually at 2-way HT, but rarely at 1-worker higher at 3-way, or 34-worker at 4-way

Table with columns: # of cores per worker, HT?, # of workers, FFT length K, iters/sec (68, 34, 17, 4, 2, 1), % performance penalty below fastest for the fft length (1 worker, 2-workers, 4-workers, 17 worker, 34-workers, 68-workers), AVX512 jump table (max exponent, bits/word), HT latency (68 workers, 17 workers, 4 workers, 2 workers), iters/sec \* exp \* ln exp. Rows include FFT lengths from 2048 to 14400.

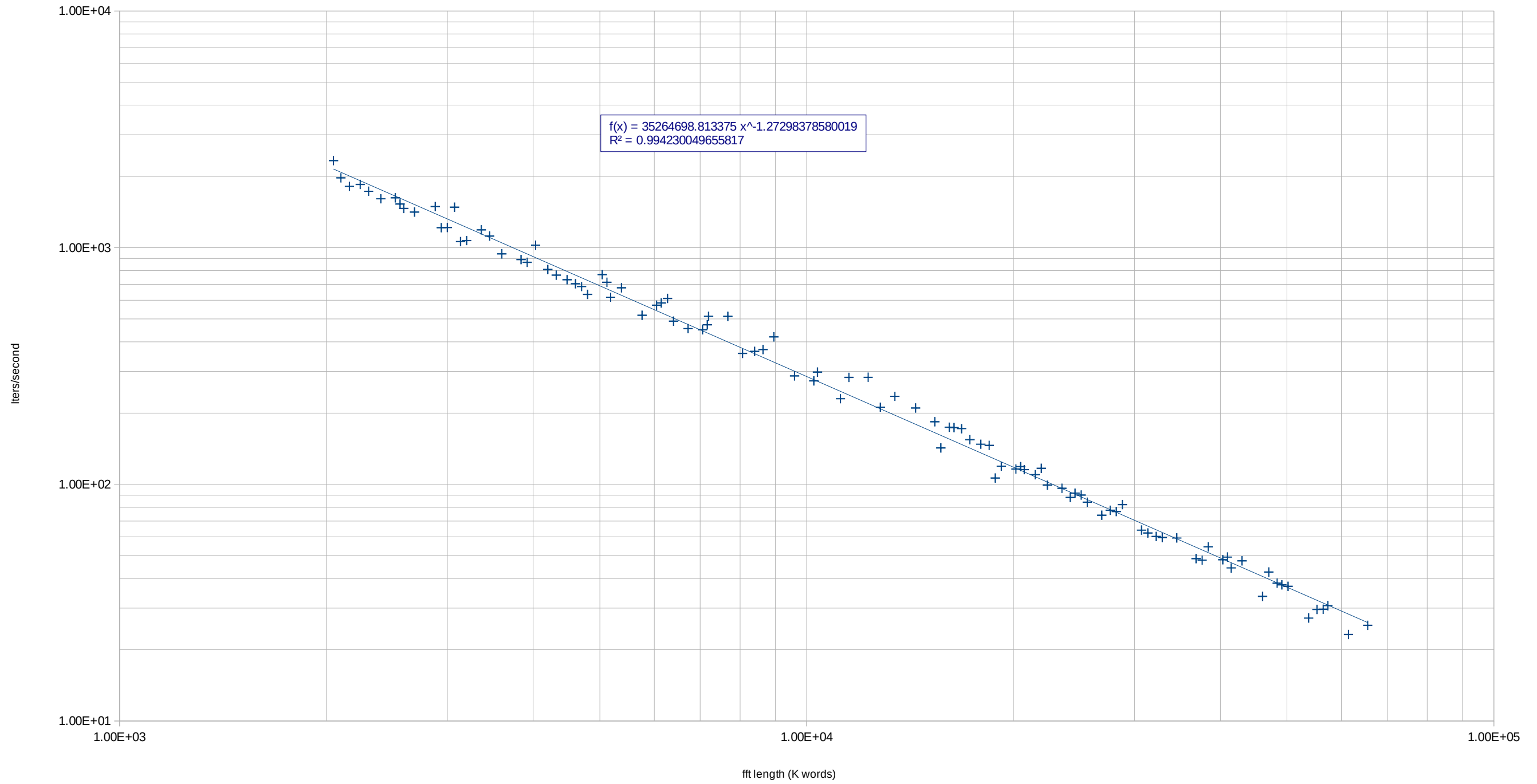


68-core Xeon Phi 7250 Prime95 V30.3b6

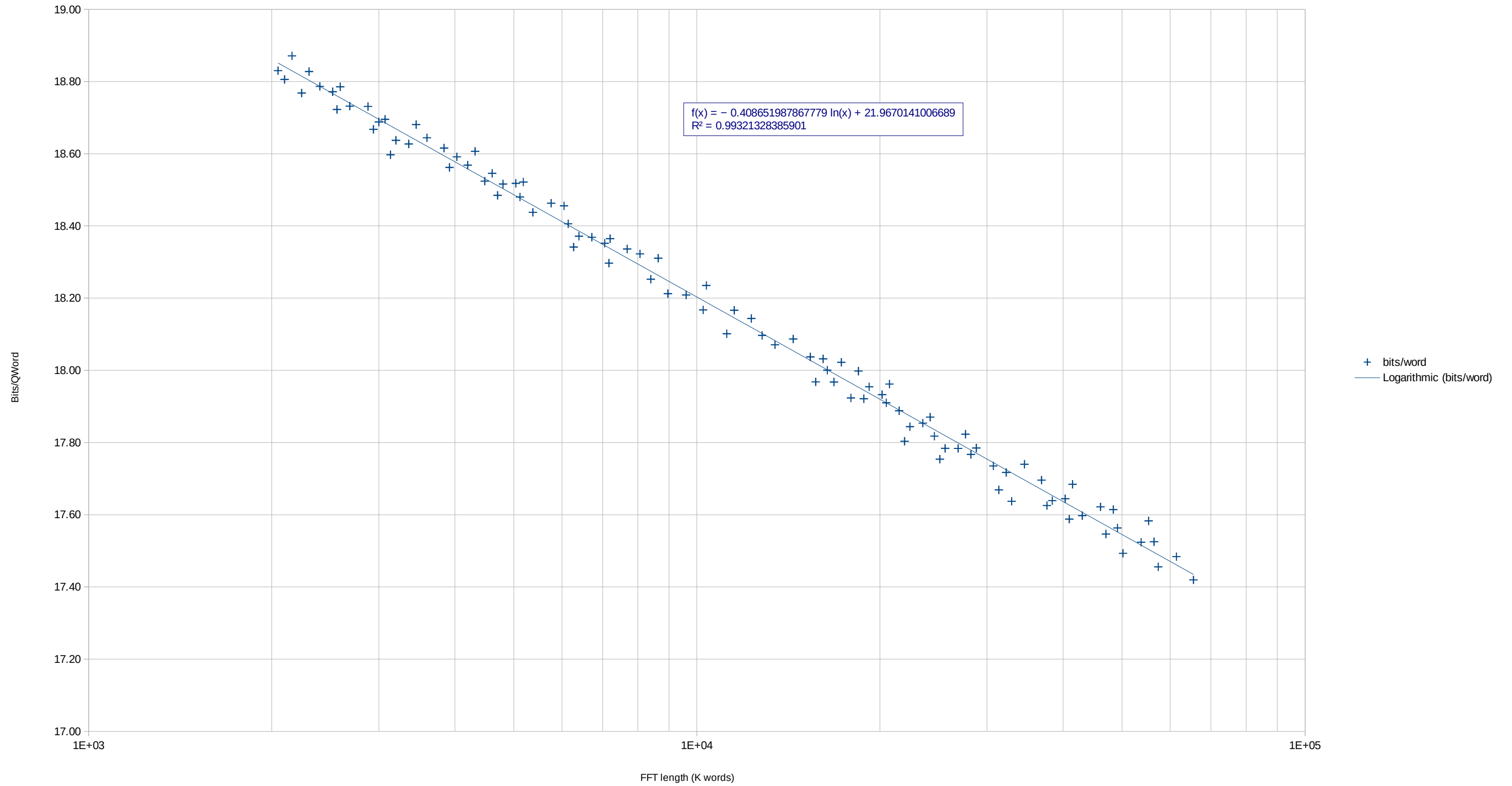
Performance penalty vs fft length specific optimum



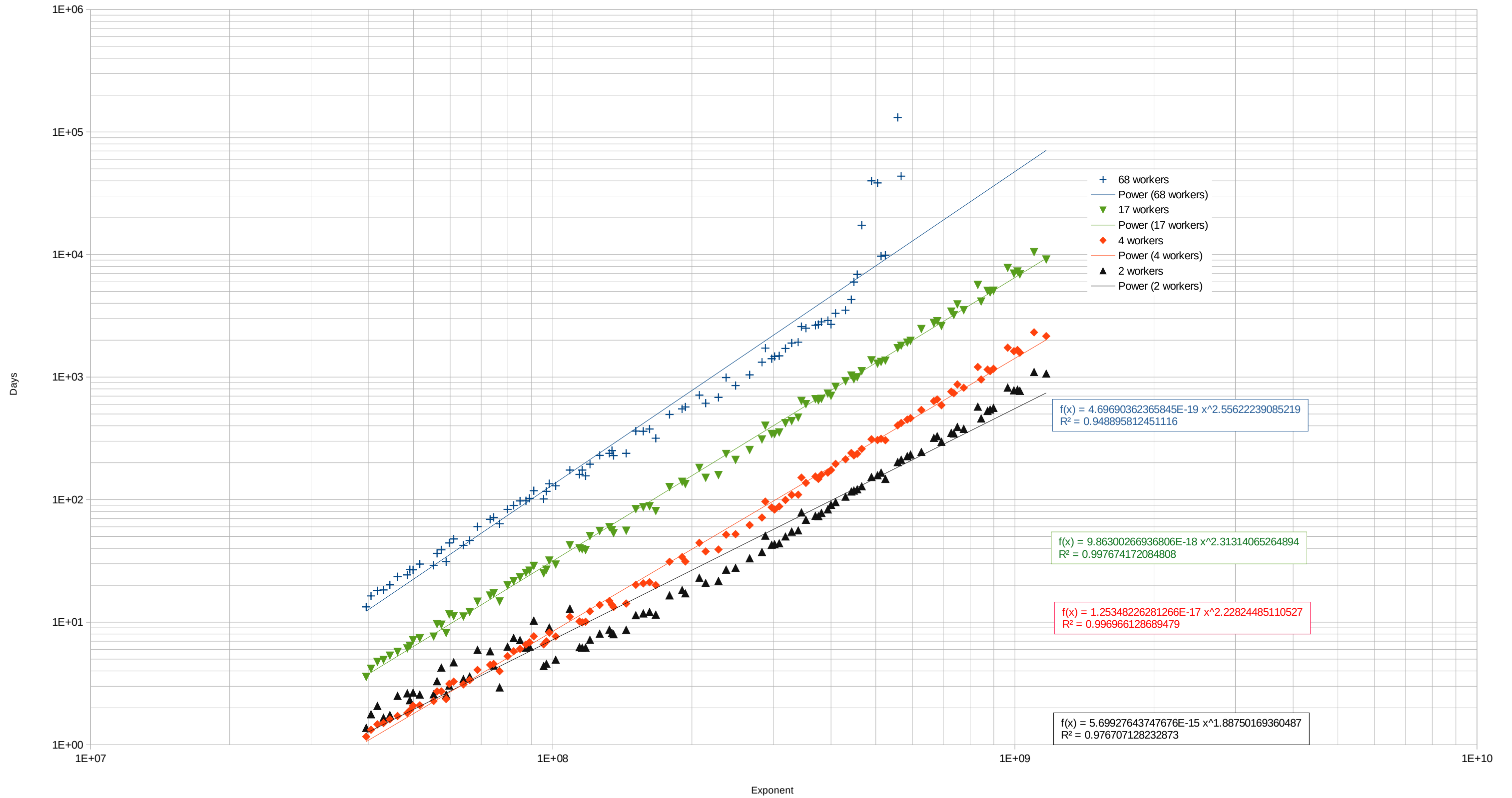
Best throughput vs. fft length



Bits / FFT Word vs. fft length (K words)



Latency versus exponent



Bottom edges of trend line equation boxes are set at positions corresponding to run times of a day, week, month or year in the plot above.

Iters/sec \* P In P and \* P In P In In P vs. FFT length

