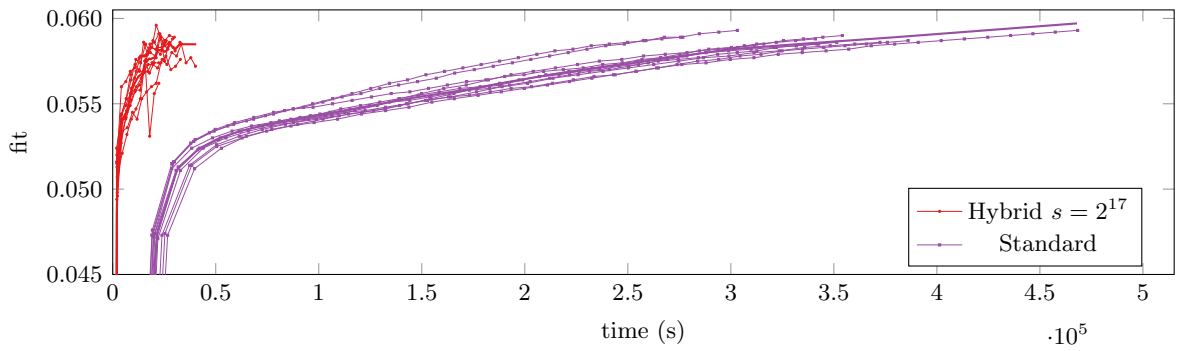
Method	Mean Time (s)	Speedup	Time Per Epoch (s)	Median Fit	Best Fit
Random $s = 2^{17}$	2.16×10^4	16.27	1832.6	0.0585	0.0590
Hybrid $s = 2^{17}$	2.92×10^4	12.00	2231.0	0.0585	0.0589
Standard	3.51×10^5	1.00	-	0.0588	0.0593

(a) Median statistics and best fit across 10 runs. Total time and speedup do not include finding the true fit for runs of the randomized methods, which was done to compare to the Standard method.



(b) Individual runs with the bias-corrected estimated fit plotted for CP-ARLS-LEV and true fit plotted for CP-ALS.

Figure 0.1: Comparison of CP-ARLS-LEV (random and hybrid) with number of samples $s =, 2^{17}$ and CP-ALS (standard) to compute a rank $r = 25$ CP decomposition of the Reddit tensor with 4.68 billion nonzeros. Random uses $\tau = 1$ and hybrid uses $\tau = 1/s$. Each experiment is run 10 times.