Error vs. Runtime: Sparsity-Accuracy Trade-off
20 Newsgroups: 18846 docs × 15000 words, rank-30

Legend:
- Gaussian (dense)
- CountSketch (s=1)
- Sparse Sign (s=2)
- Sparse Sign (s=4)
- Sparse Sign (s=8)
- Sparse Sign (s=16)
- Sparse Sign (s=32)
- Sparse Sign (s=64)
- Optimal rank-30

Y-axis: Relative Error

X-axis: Runtime (ms)

$\ell=40$

$\ell=500$

Lower-left is better
(faster & more accurate)