

# Comprehensive Model Comparison

Method	Execution Time (s)	Peak Memory (GB)	Reconstruction Quality	Information Criterion	Factor Stability
SPARSEGFA	432.24	2.47	N/A*	N/A	N/A**
PCA	0.17	2.49	0.6042	N/A	N/A
ICA	0.12	2.53	0.4894	N/A	N/A
FA	53.92	9.46	0.5994	N/A	N/A
NMF	1.12	2.55	0.7358	N/A	N/A
KMEANS	1.16	2.55	0.5444	N/A	N/A**
CCA	2.37	5.62	0.6895	N/A	N/A**

\* *sparseGFA*: CV reconstruction failed (computationally expensive due to MCMC)  
\*\* *sparseGFA*, *CCA*, *K-means*: Factor stability not computed (bootstrap too expensive or not applicable)