

# Comprehensive Model Comparison

Method	Execution Time (s)	Peak Memory (GB)	Reconstruction Quality	Information Criterion	Factor Stability
SPARSEGFA	425.95	2.64	N/A*	N/A	N/A**
PCA	0.03	2.62	0.7085	N/A	N/A
ICA	0.04	2.62	0.5007	N/A	N/A
FA	0.11	2.62	0.6987	N/A	N/A
NMF	0.04	2.62	0.7998	N/A	N/A
KMEANS	0.72	2.63	0.5830	N/A	N/A**
CCA	0.10	2.63	0.7155	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)