



Probabilistic Relational PCA

Wu-Jun Li, Dit-Yan Yeung and Zhihua Zhang

Relational data: Instances are **linked** with each other; **non-i.i.d.**

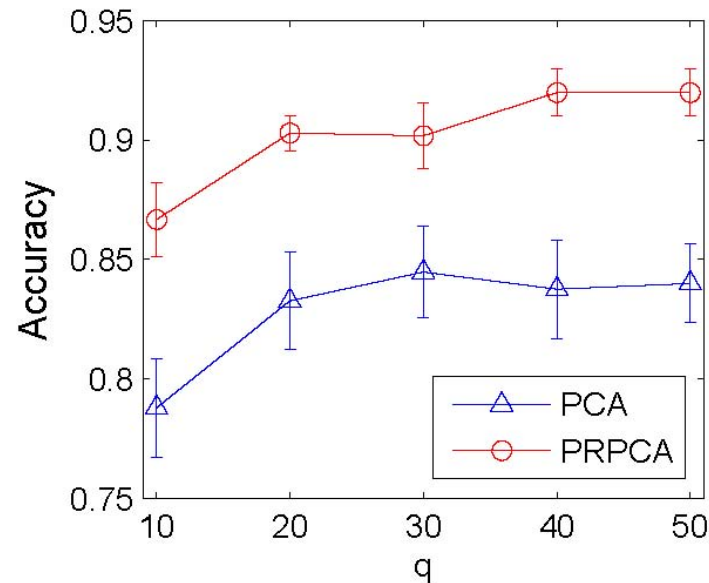
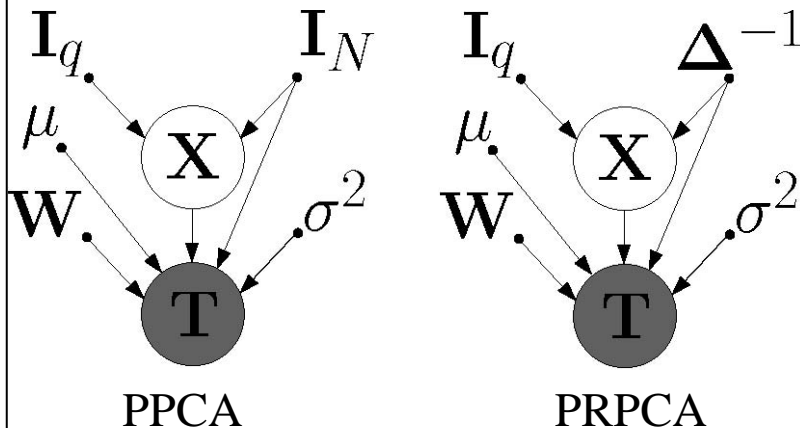
Examples: hyperlinked web pages; protein-protein interaction data

Probabilistic PCA (PPCA):

i.i.d. assumption

Probabilistic Relational PCA

(PRPCA): **eliminate** the i.i.d. assumption



Potential applications: linked document analysis; social network analysis; biological network modeling

Code available at: <http://www.cse.ust.hk/~liwujun>