Hierarchy in Networks–Datasets

- 141 datasets from UCINET, organizational emails, and Congress

Type	Nodes	Edges	Density	Cluster Coeff.
Communication	25.71429	2419.00000	3.48259278	0.5579696
Cosponsorship	101.22222	13358.88889	1.31717035	0.7881265
Co-membership	22.00000	9267.33333	18.31816448	0.3768116
Interaction	23.07500	1944.95000	1.98532327	0.5890074
Unknown	76.83333	4688.25000	0.35985251	NaN
Friendship	29.83333	92.00000	0.12159897	0.3483177
Affect	17.63636	95.18182	0.31874335	0.3291889
Terrorism	63.00000	308.00000	0.07885305	0.3614130
Trade	24.00000	285.60000	0.51739130	0.7335679

Hierarchy in networks–Measures

Measure	Undirected	Weighted	Global	Local
Landau's h		X	X	
Kendall's K	X	X		X
Reach Degree	X	X		X
Reach Closeness	X	X		X
GRC	X	X	X	X
Rooted Depth			X	
Degree	X	X	X	X
Closeness	X	X	X	X
Betweenness	X	X	X	X
Eigenvector	X	X	X	X

Hierarchy in Networks – Global Measures
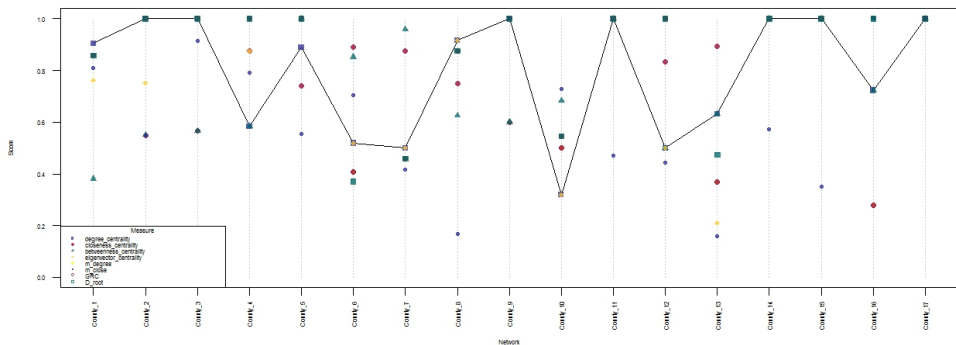

Global Hierarchy Measures
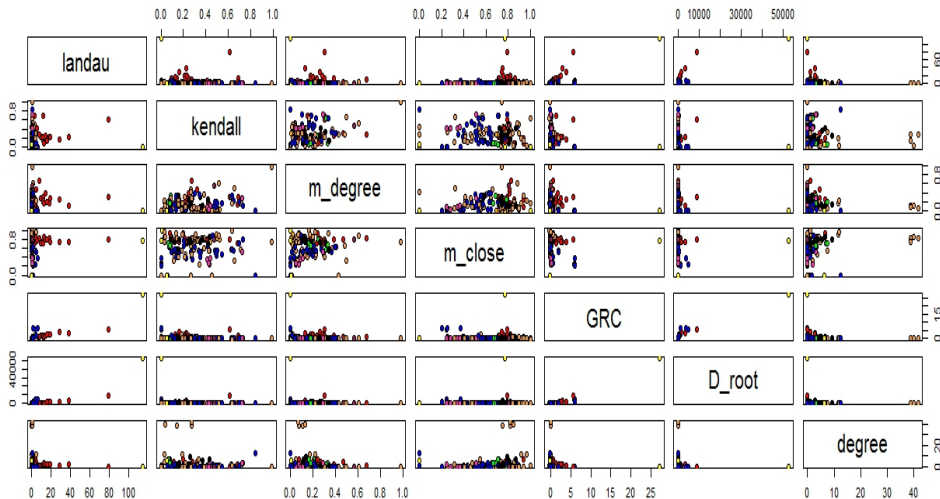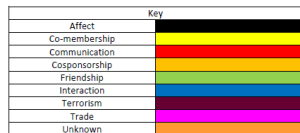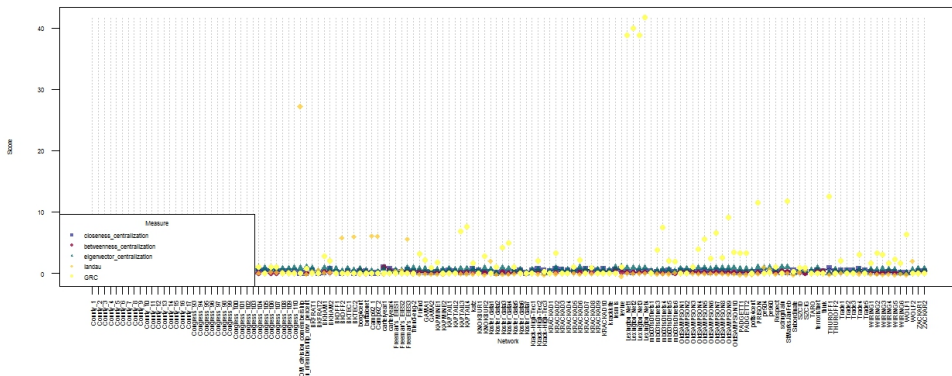
Hierarchy in Networks – Local Measures
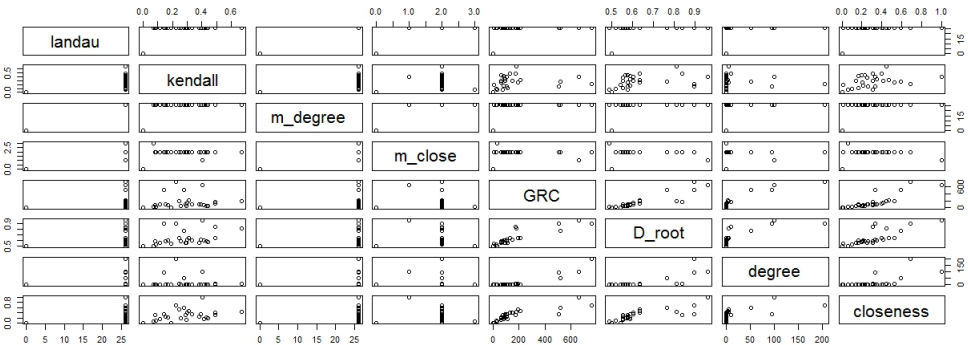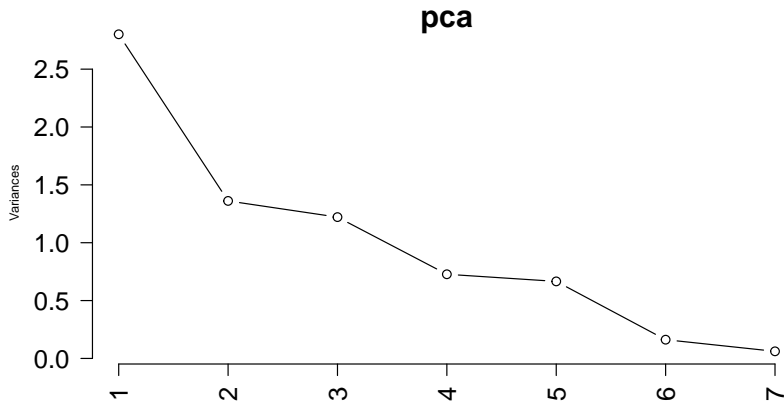

*Measures for dataset 6.

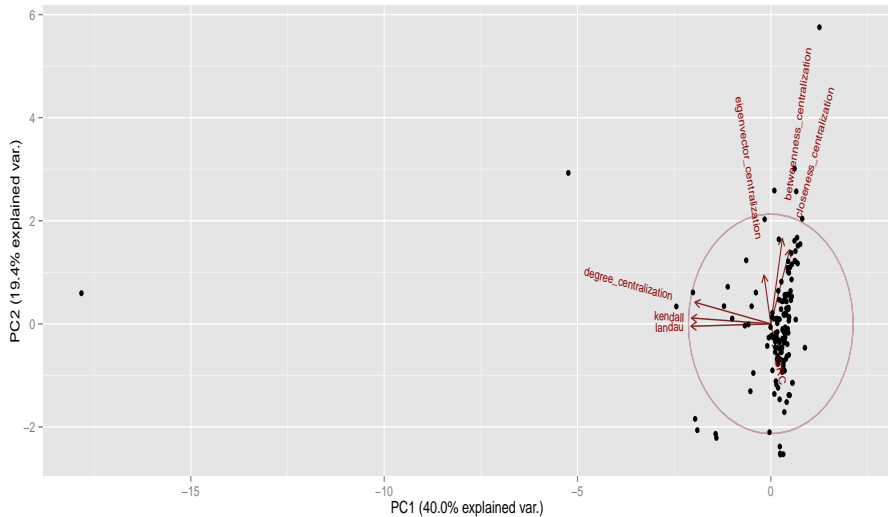# Hierarchy in Networks – Comparing Measures

Hierarchy in Networks – Comparing Measures

Hiearchy in Networks – PCA

Hierarchy in Networks – PCA

Hierarchy in Networks – PCA