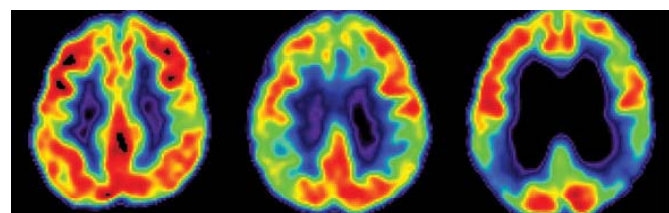


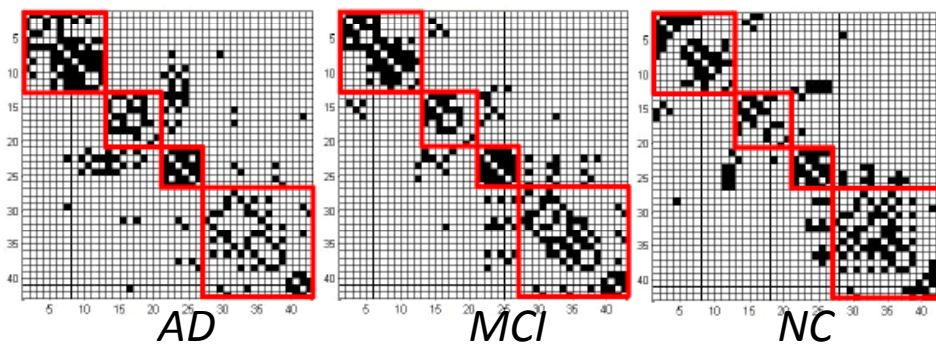
# Learning Brain Connectivity of Alzheimer's Disease from Neuroimaging Data

Shuai Huang, Jing Li, Liang Sun, Jun Liu, Teresa Wu, kewei Chen, Adam Fleisher, Eric Reiman, Jieping Ye

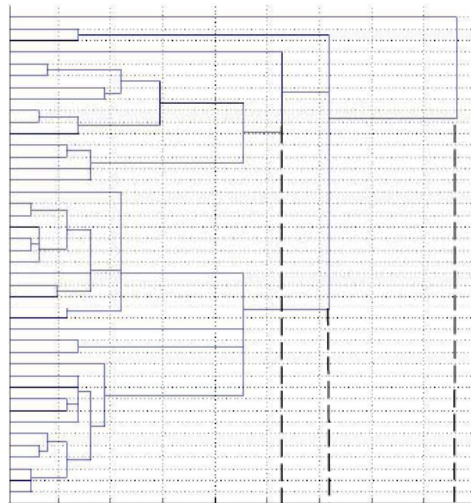


Normal Control (NC)    Mild Cognitive Impairment (MCI)    Alzheimer's Disease (AD)

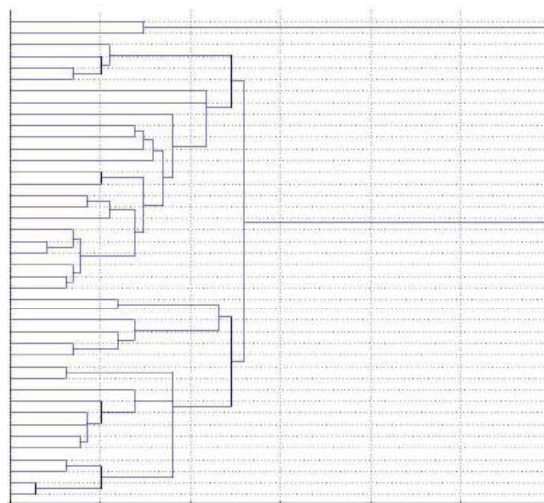
PET Brain Images



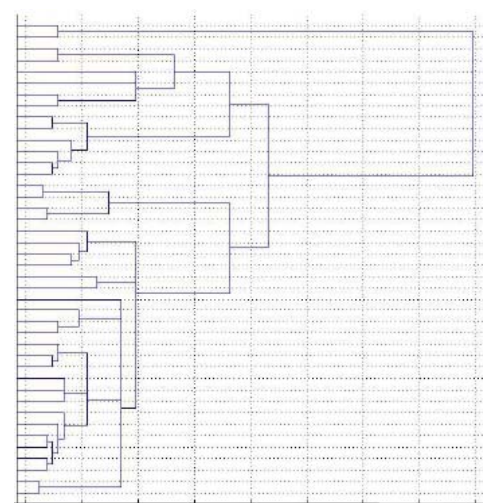
Brain Connectivity Model by Sparse Inverse Covariance Estimation (SICE)



AD



MCI



NC

Proved Monotone Property of SICE enables ID of the order that brain regions functionally disconnect as disease progresses