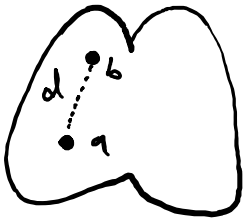
Fig-9

Monday, September 27, 2021 5:48 PM



$$\begin{cases} d_{ab}^{(phys)} = \text{euclidean physiological distance} \left(\begin{matrix}\text{normalize}\\ \text{to } [0,1]\end{matrix}\right) \\ d_{ab}^{(func)} := \frac{1}{2}\left(1 - \cos(\gamma_a, \gamma_b)\right) \in [0,1] \\ \text{define} \\ \xi := \left[d_{ab}^{(phys)}\right]^{\eta} \left[d_{ab}^{(func)}\right]^{-\gamma}, \text{ for positive } \eta, \gamma \end{cases}$$

find nodes a,b that have large ξ

what patterns emerge?

relationship to entropy?

Expectations

(1) nodes with large entropy are more likely to be functionally close to regions at distance

(2) nodes with small entropy and large degree only have local short range friends (on average)