Graph metric	Brief description	Reference
Assortativity coefficient	A measure of correlation between the degrees of two connected nodes	1-3
Betweenness centrality	The ratio of shorted path lengths in a network that pass through a given node	4,5
Characteristic path length	The average shortest path between all pairs of nodes in a network	6-8
Clustering coefficient	The extent to which nodes tend to cluster together	9,10
Degree	The number of nodes connected to a given node	11-13
Diameter	The maximum eccentricity in a network	14
Diversity coefficient	The uncertainty in assigning a given node to its local module	15
Eccentricity	The maximum path length between a given node and any other node in a network	6-8
Edge neighbourhood overlap	The extent to which their immediate neighbours overlap for a given pair of nodes	16
Eigenvector centrality	The extent to which the neighbours of a given node are connected to the rest of the network	7,17,18
Global efficiency	The average of the inverse of all shortest path lengths in a network	8,19,20
Local efficiency	Same as global efficiency, but on the level of individual nodes	21-23
Matching index	The extent to which pairs of nodes share connection patterns	24,25
Node coreness	A given node has node coreness k if it belongs to the k^{th} core but not the $(k+1)^{th}$ core	26
Node pair degree	The degree of each pair of nodes considered in the calculation of the edge neighbourhood overlap	16
Participation coefficient	The ratio of a given node's connections within its local module to its connections with the rest of the network	25
Radius	The minimum eccentricity between any two nodes in a network	14
Rich club coefficient	The ratio of the number of edges connecting nodes of degree k to their total possible connections	27-29
Strength	A weighted version of degree	8,30,31
Transitivity	A global version of clustering coefficient	31-33

Supplementary Table 2: Summaries of graph metrics used in this study

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