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| **Graph Theory Feature** | **Description** |
| *Basic structure* | |
| numNodes | the number of neurons that had at least one non-zero weight to another neuron |
| numEdges | the number of edges |
| density | the density of edges (i.e., the number of actual edges divided by the total possible number of edges in a fully-connected network) |
| numComponents | the number of isolated subgraphs in the network |
| avgWeight | the average weight of the network |
| medWeight | the median weight of the network |
| avgEigenvalue | the mean of the positive eigenvalues of the adjacency matrix |
| maxEigenvalue | the largest eigenvalue of the adjacency matrix |
| *Functional segregation* | |
| avgClusteringCoeff | the average over all neurons of the fraction of 3-neuron clusters, or triangles, around each neuron |
| transitivity | a globally normalized version of the clustering coefficient |
| avgLocalEff | the mean local efficiency (i.e., the average over all neurons of the lengths of the inverse shortest paths between two of the neuron’s neighbors) |
| modularity | the extent to which a network can be divided into clusters, or modules, of neurons with dense connections amongst themselves, and sparse connections to neurons in other clusters |
| numModules | the number of modules |
| *Functional integration* | |
| avgShortestPath | the average shortest path between all pairs of neurons in the network |
| globalEff | the global efficiency, or the average inverse shortest path length |
| radius | the smallest shortest path connecting any two neurons |
| diameter | the largest shortest path connecting any two neurons |
| *Centrality* | |
| avgParticipationCoeff | the degree to which a neuron communicates with neurons in different modules |
| avgBetweennessCentrality | the average of the fraction of shortest paths linking any two neurons that pass through a given neuron |
| avgEigenvectorCentrality | the average of each node’s importance as defined by its connection to other important nodes |
| *Resilience to perturbations* | |
| avgDegDist | the average of each neuron's degree, or sum of the edge weights to other neurons |
| assortCoeff | the correlation coefficient between the degrees of two connected neurons, where a negative number indicates neurons with a high degree are connected to neurons with a low degree |
| avgNeighborDegree | the average degree of the neighbors of a given node, averaged over all nodes |