List of Symbols

Symbol	*Description*
G	Represents a network
V	Set of nodes in G
$\|V\|$	Size of set V
E	Set of edges in G
n	n is the number of nodes in G
$O(n)$	Order of n
A	Adjacency matrix associated with G
a_{ij}	ij^{th} entry of A
L	Graph Laplacian of G
$\boldsymbol{d}$	Degree vector of G
D	Diagonal matrix of the degrees of G
Q	Modularity Index
k_i	Degree of node i
δ_{ij}	Kronecker delta function
$AI(G)$	Assortativity of the network G
p	Probability
$\lambda_1(A)$	Largest eigenvalue of A
$\lambda_1(L)$	Smallest eigenvalue of L
$f(x)$	Function of x
γ	Power-Law exponent
t	Represents time
K_n	Complete graph of n nodes
A^T	Transpose of A
D_G	Expected diameter of G.
m	Number of edges in G
$\bar{k}$	Average degree
$\dot{x}(t)$	Differential of x with respect to t
$\mu(G)$	Node connectivity of G
$\eta(G)$	Edge connectivity of G
T_i	Triangle having i positive edge
$e(t)$	Number of edges at time t
w_{ij}	Weight of the link $(i\ j)$