

*Degree*

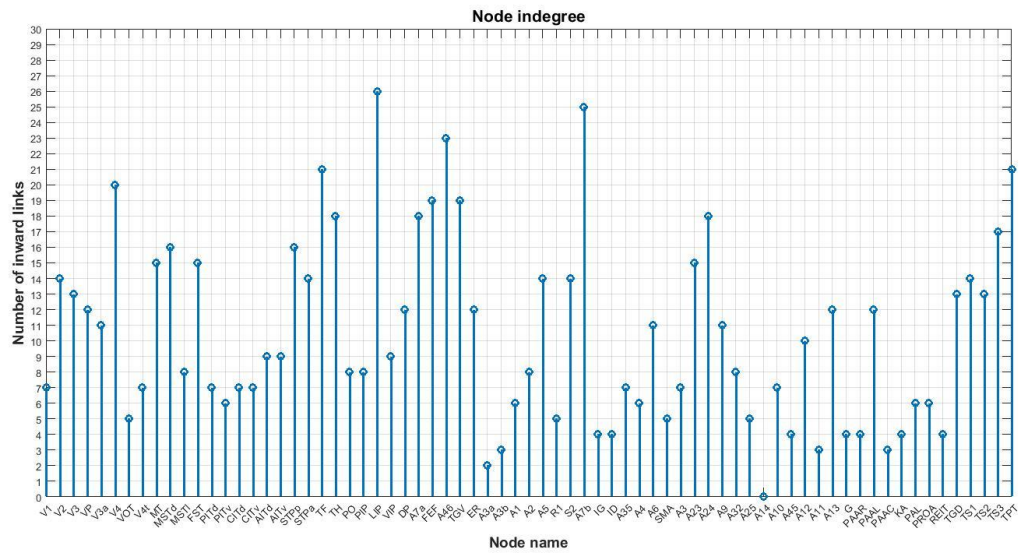


Figure 1. Stemplot represents the number of inward links for each node in macaque cortical connectivity network

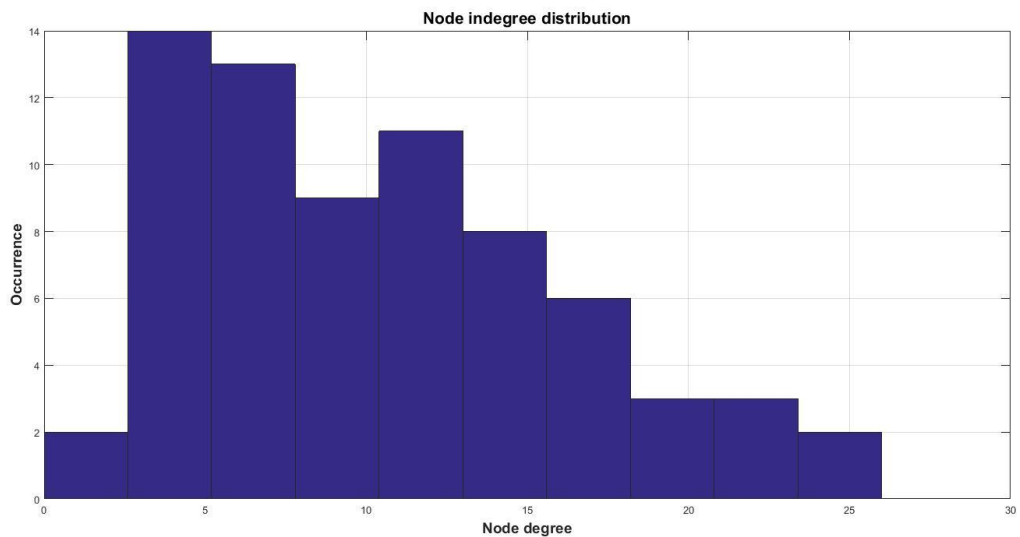


Figure 2. Network indegree (number of inward links) distribution

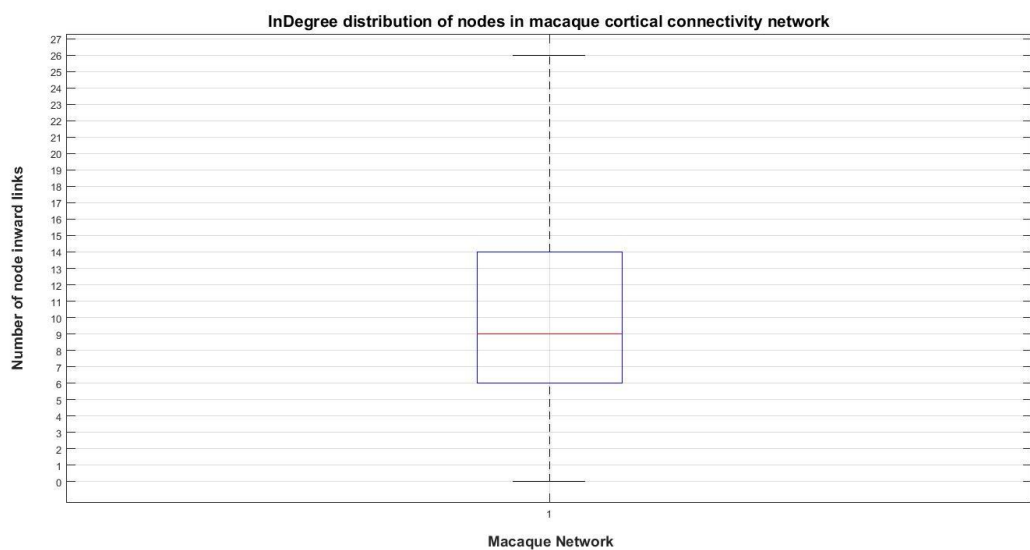
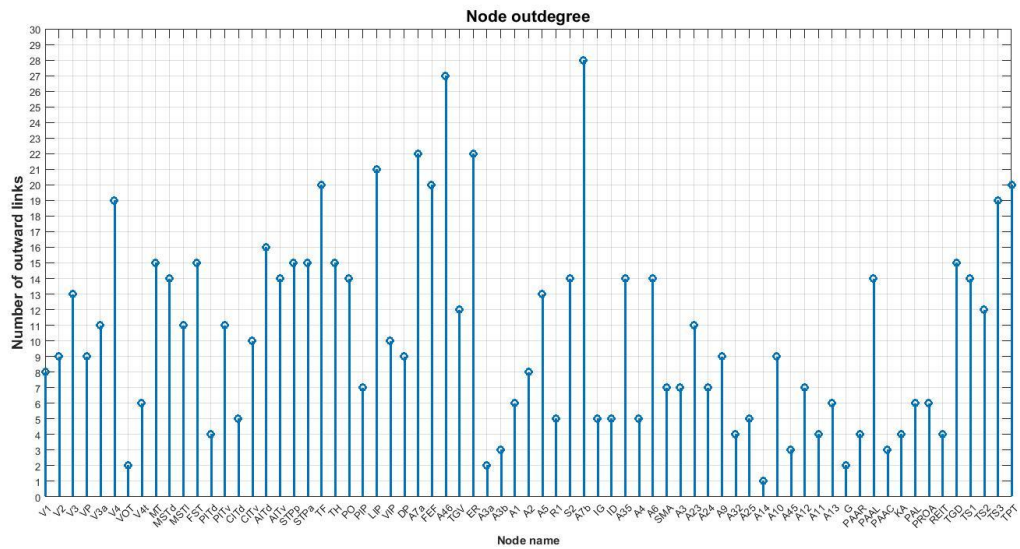


Figure 3. Boxplot of network indegree (number of inward links) distribution



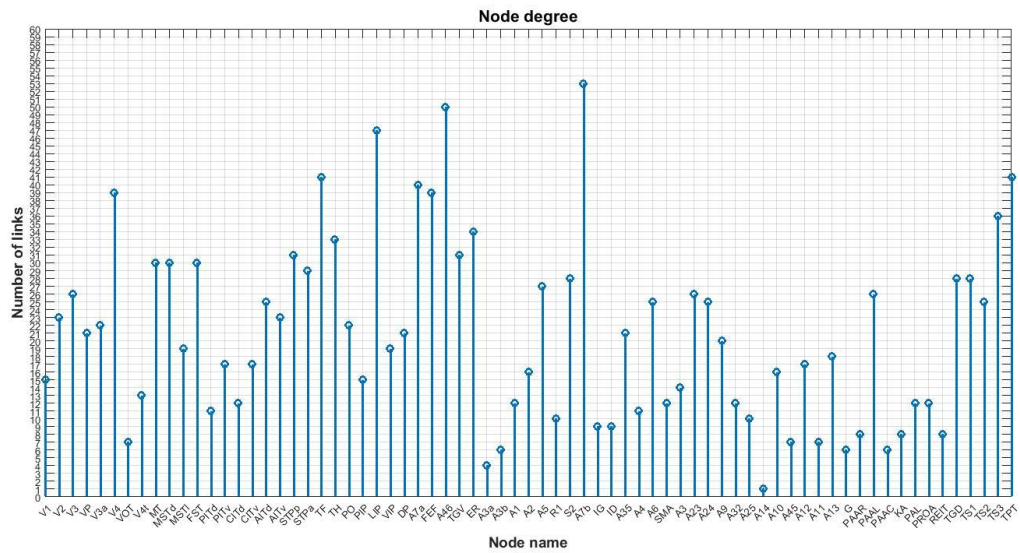


Figure 7. Stemplot represents the degree (number of inward+outward links) of each node node in macaque cortical connectivity network

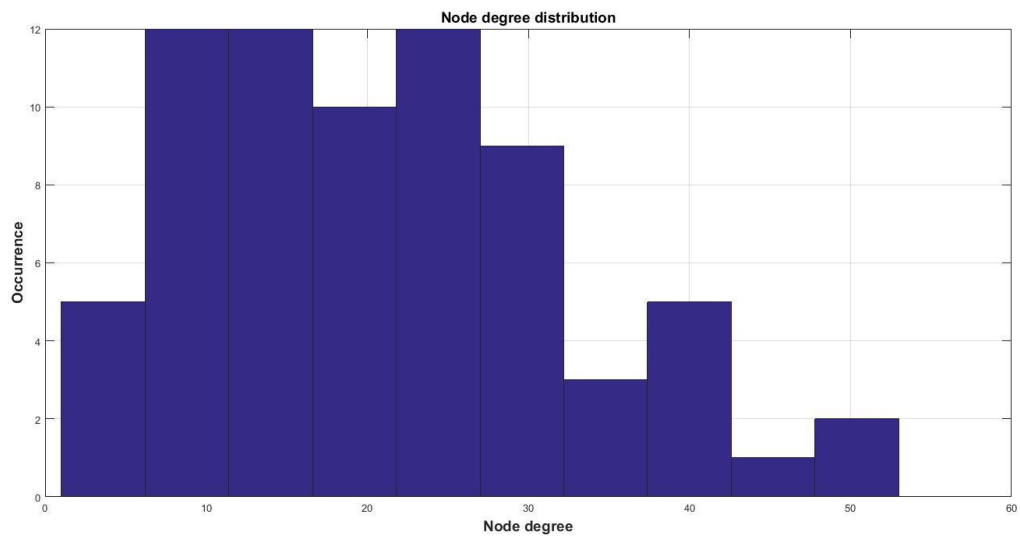


Figure 8. Network degree (number of inward+outward links) distribution

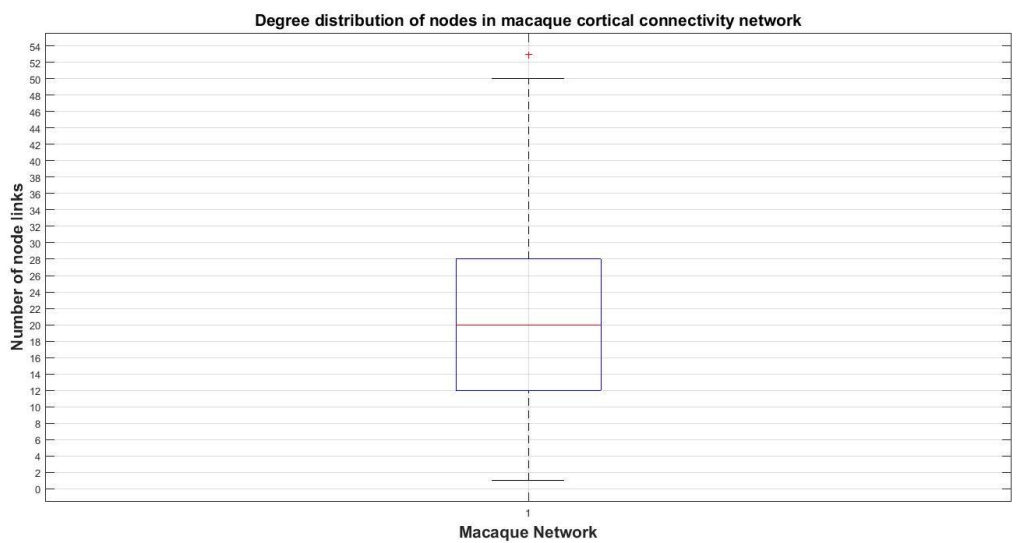


Figure 9. Boxplot of network degree (number of inward+outward links)

***Joint degree***

$J_{od} = 25$  number of vertices with  $od > id$ ;

J\_id = 27 number of vertices with id>od.  
J\_bl = 19 number of vertices with id=od.

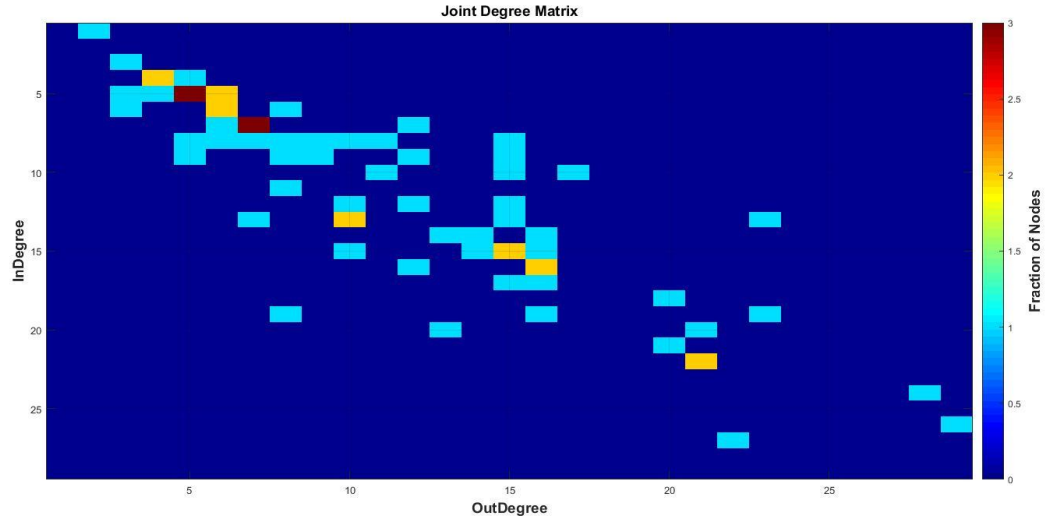


Figure 10. Joint degree matrix of cortical connectivity network

### Matching index

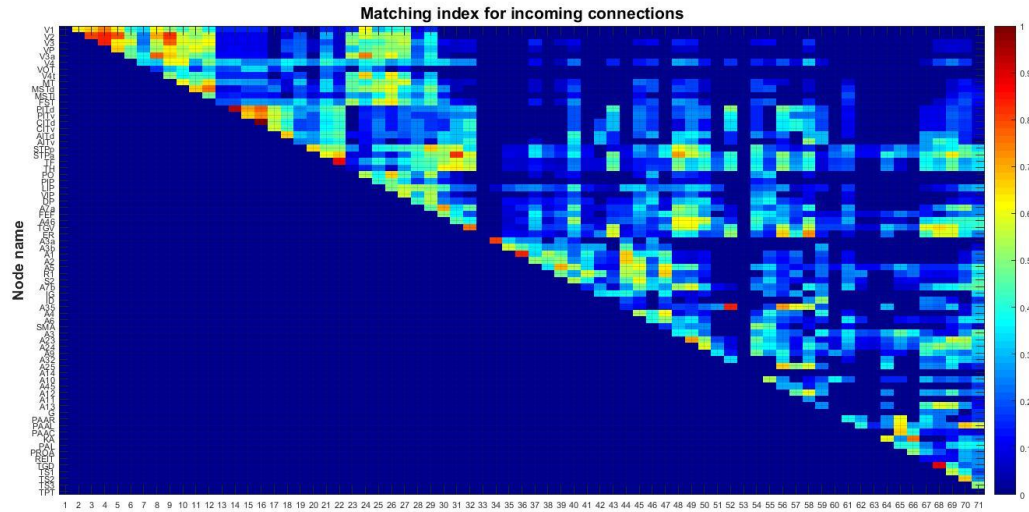


Figure 11. Matching index, an overlap in the patterns of incoming connection for pairs of nodes

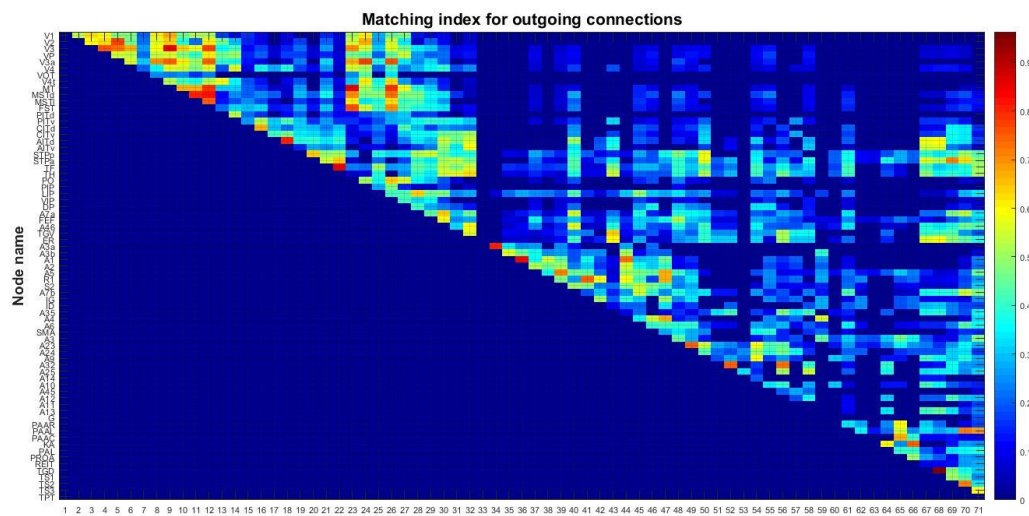


Figure 12. Matching index, an overlap in the patterns of outgoing connection for pairs of nodes

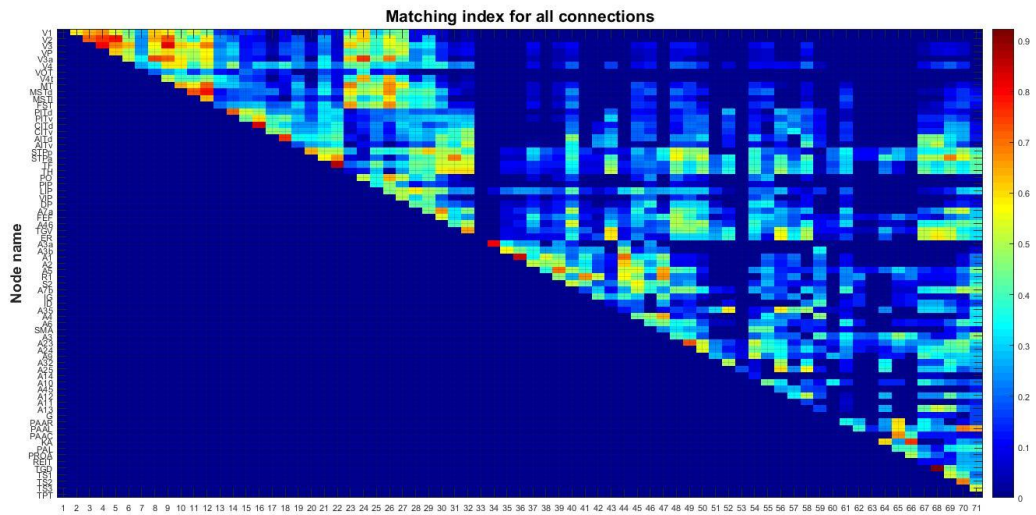


Figure 13. Matching index, an overlap in the patterns of all connection for pairs of nodes

### ***Density***

$K_{den} = 0.1501$  (density);  $N = 71$  (number of vertices);  $K = 746$  (number of edges)

### ***Clustering coefficient***

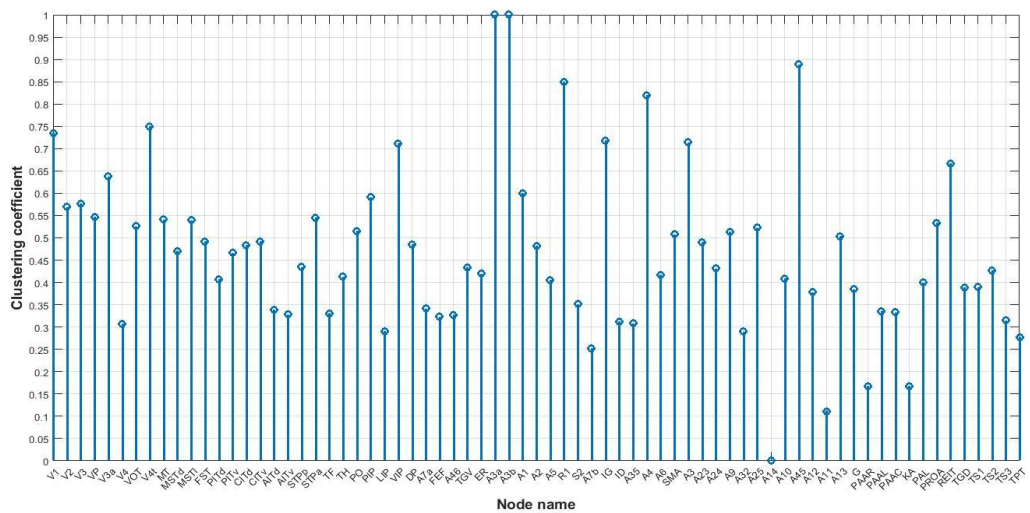


Figure 14. Stemplot represents clustering coefficient of each node in the connectivity network

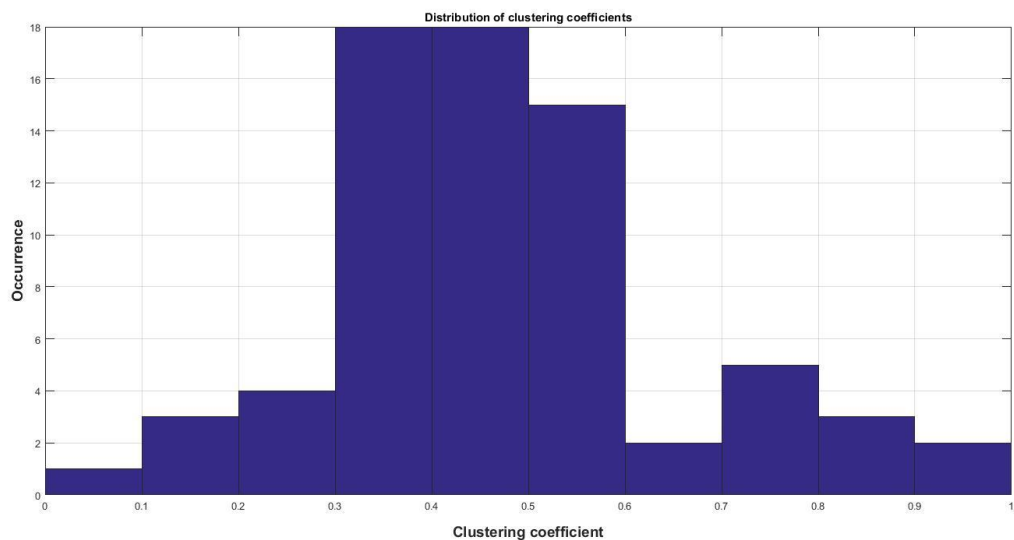


Figure 15. Clustering coefficients distribution of network



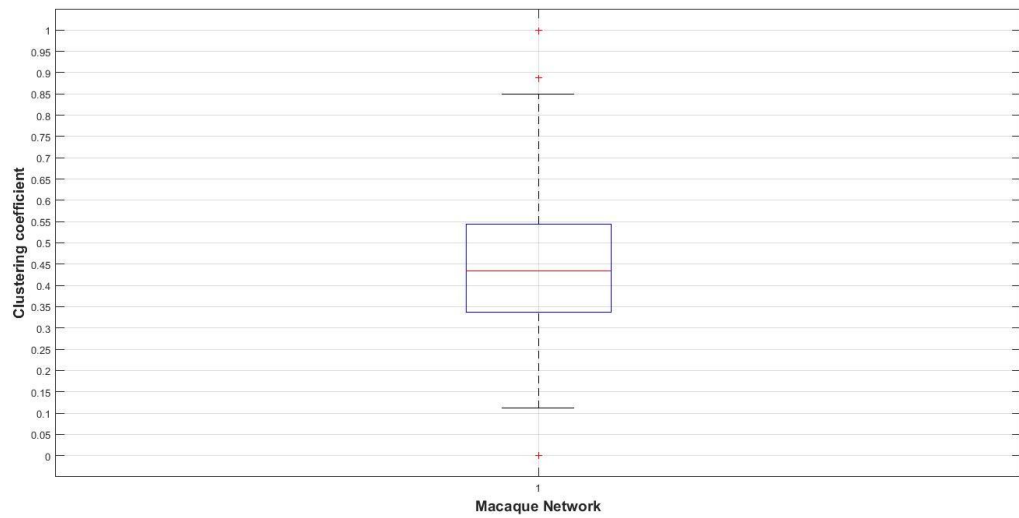


Figure 16. Boxplot of network clustering coefficient

### ***Transitivity***

$T = 0.398$  (Ratio of triangles to triplets' in the network)

### ***Local efficiency***

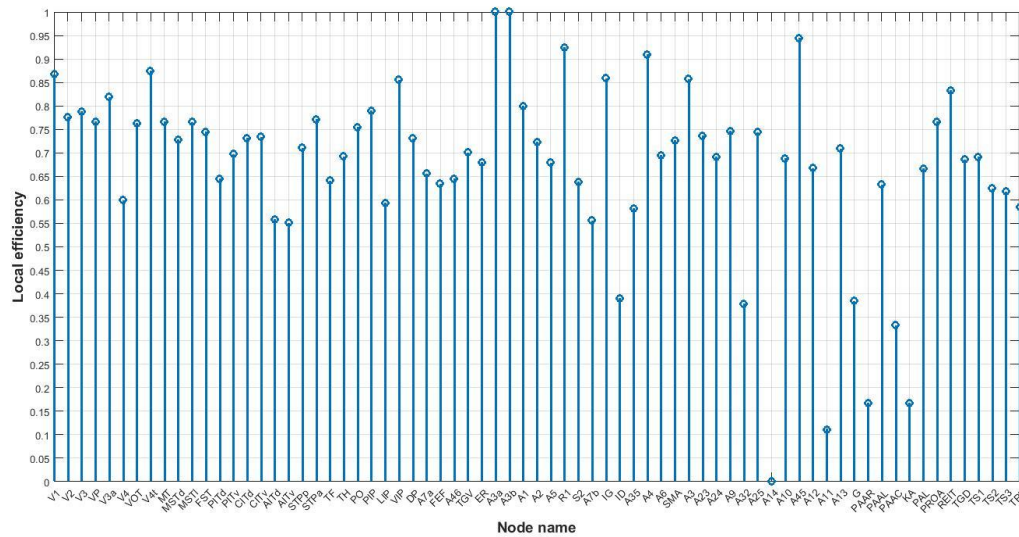


Figure 17. Stemplot represents local efficiency of each node

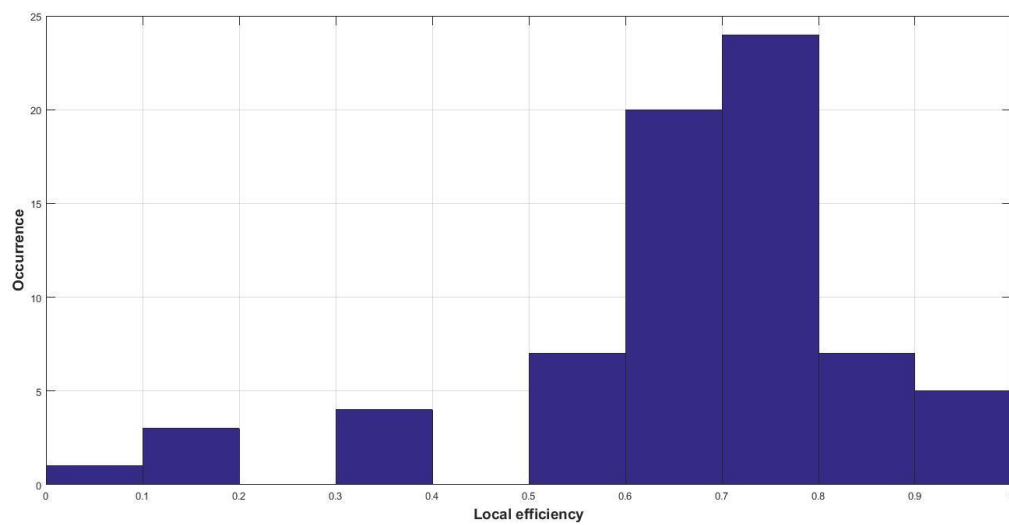


Figure 18. Histogram of local efficiency distribution



*Betweenness centrality*

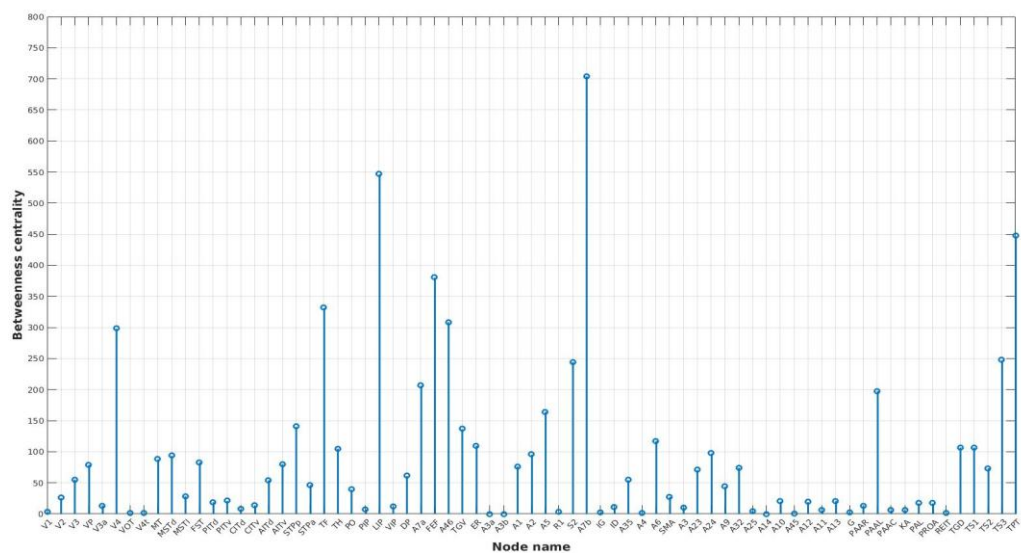


Figure 21. Stemplot represents betweenness centrality of each node in the network

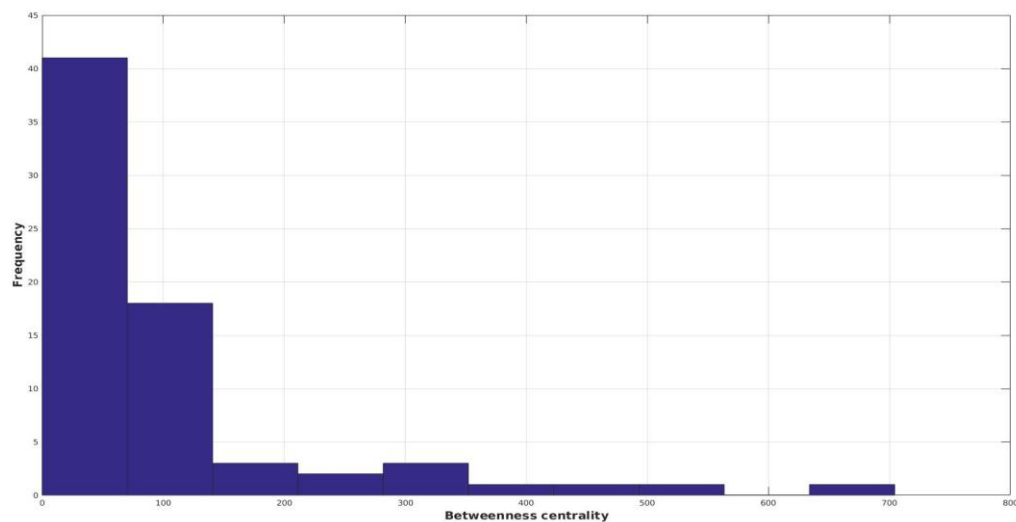


Figure 22. Betweenness centrality distribution of network

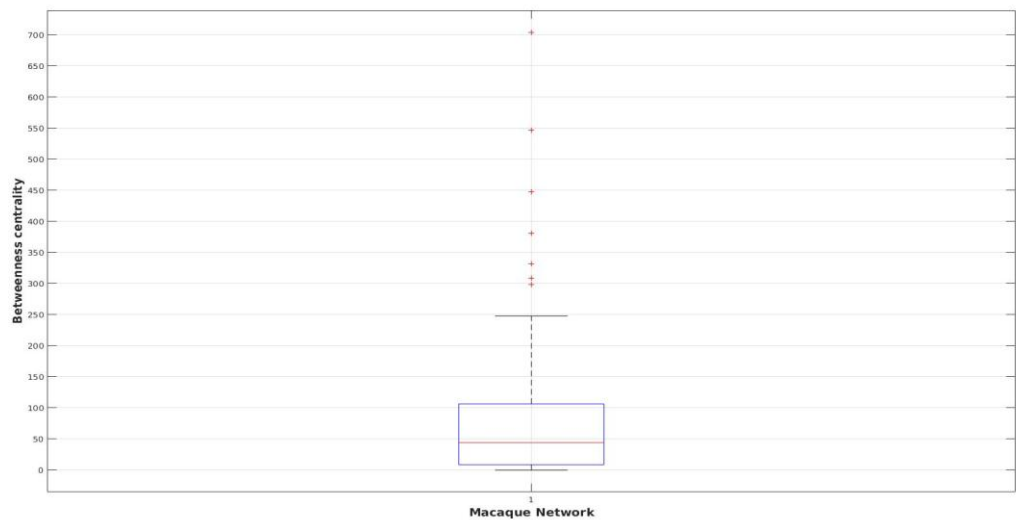


Figure 23. of network betweenness centrality



## *Distance*

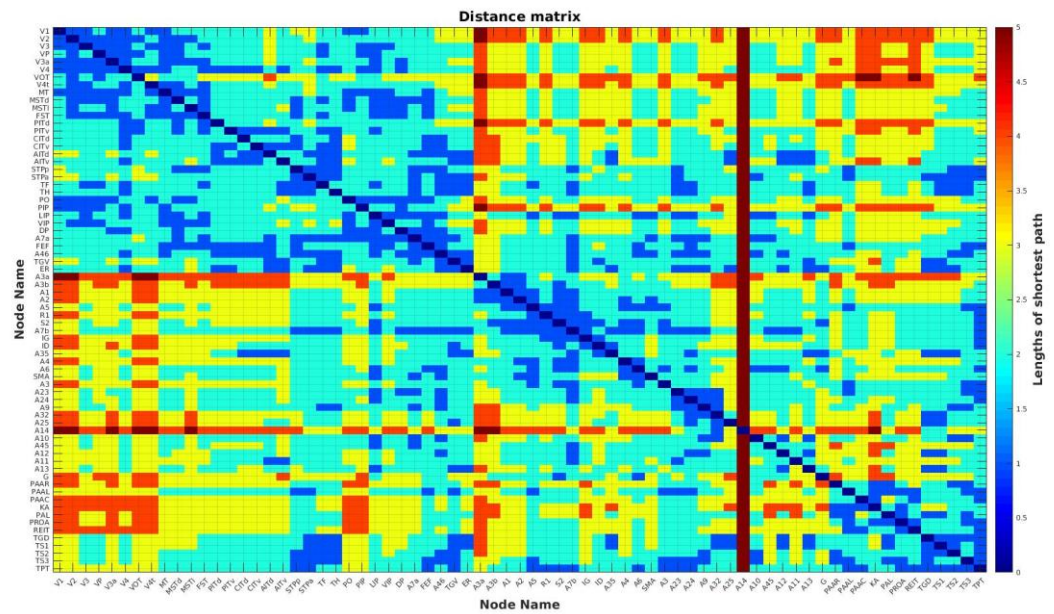


Figure 24. Distance matrix represents the length of shortest path from node I to node j

## *Characteristic path length*

$\lambda = \inf$  (disconnected nodes?)