

Supplementary Material

Graphlet-Based Edge Weighting for Improved Community Detection in Complex Networks

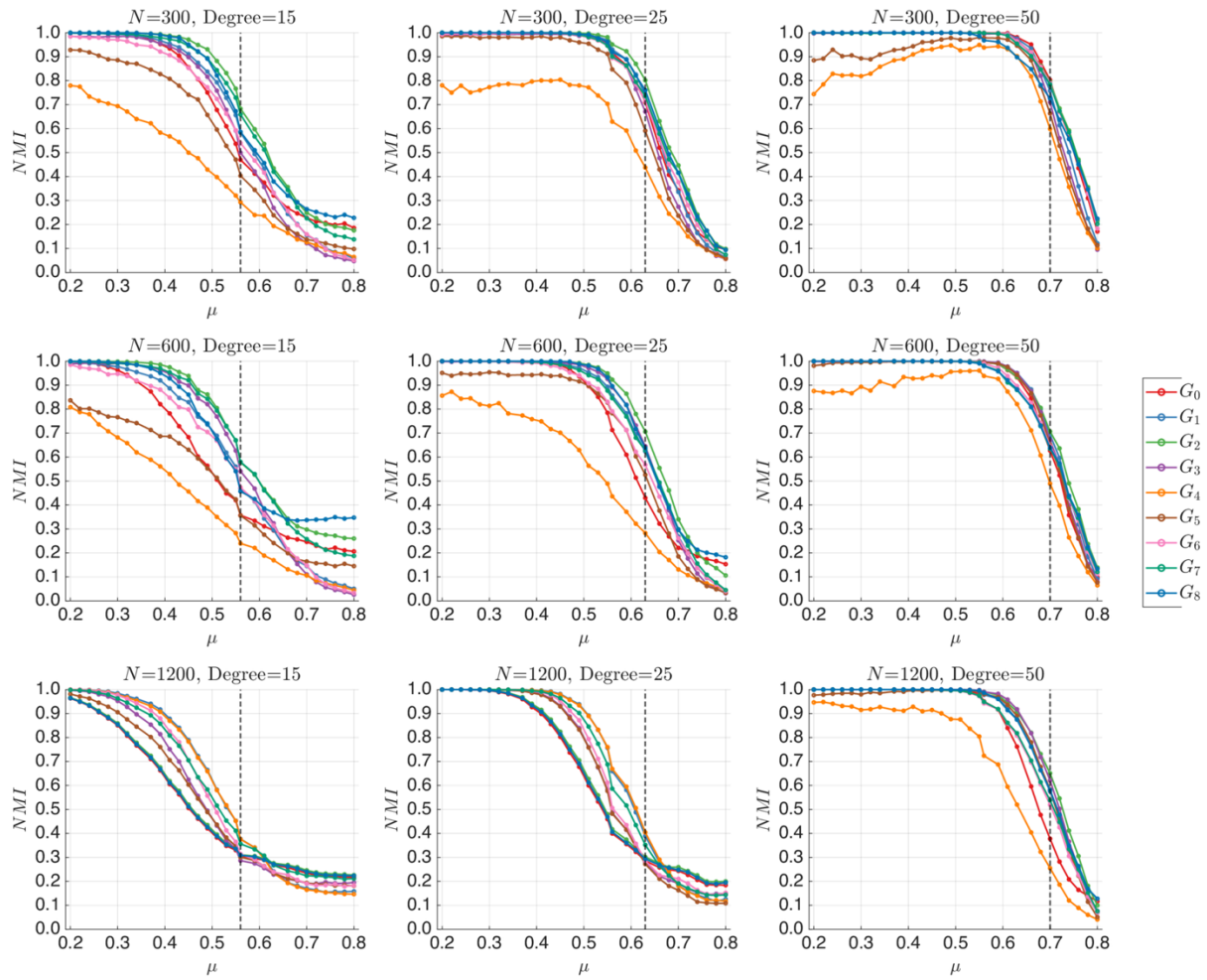
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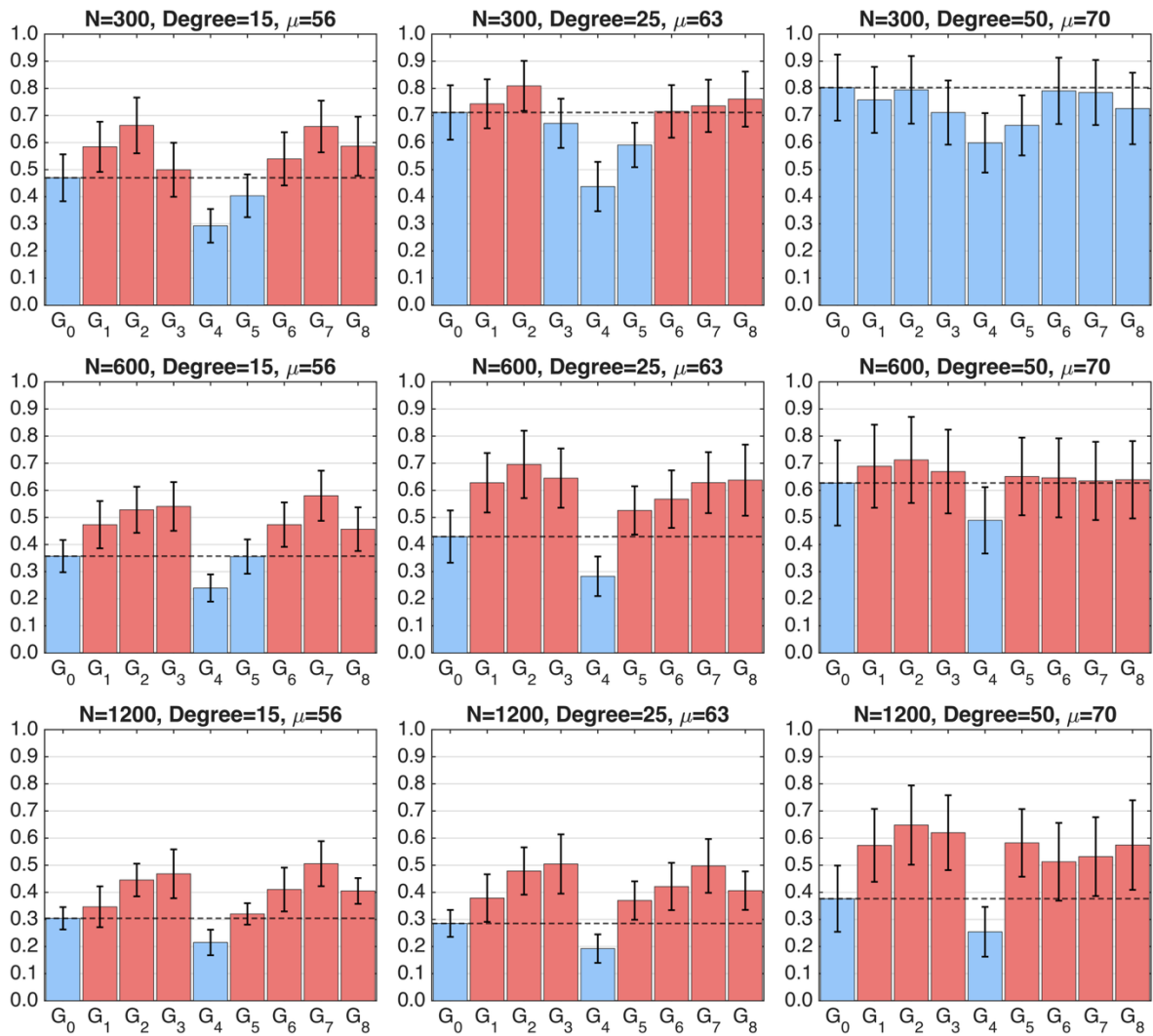
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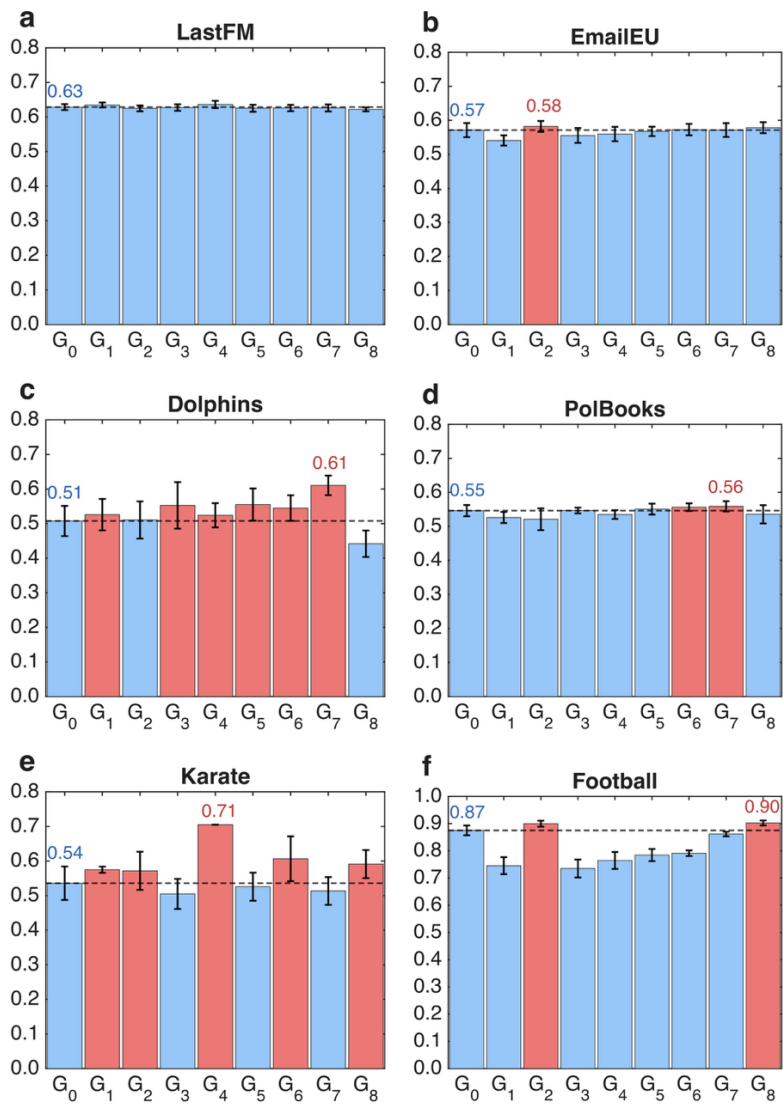
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Supplementary Fig. 1 Mean NMI values versus mixing parameter μ for the LFR benchmark networks using the Walktrap method.



Supplementary Fig. 2 Mean NMI values and corresponding standard deviations for different graphlets across nine LFR benchmark network settings at selected mixing parameters $\mu=0.56$, 0.63 , and 0.70 , which correspond to average node degrees of 15, 25, and 50, respectively. The horizontal dashed line denotes the baseline NMI obtained using the unweighted graphlet G_0 . Community detection was performed using the Walktrap method in all cases. Note that the mean and standard deviation of NMI are calculated over 100 independent network instances generated with different random seeds.



Supplementary Fig. 3 Mean NMI values and corresponding standard deviations for real-world networks obtained using the Louvain algorithm (30 runs using different random seeds). The horizontal dashed line denotes the baseline NMI obtained using the unweighted graphlet G_0 . Red bars indicate graphlets with higher NMI values than the baseline graphlet G_0 .