SUPPLEMENTARY FIGURES FOR AN "OPINION REPRODUCTION NUMBER" FOR INFODEMICS IN A BOUNDED-CONFIDENCE CONTENT-SPREADING PROCESS ON NETWORKS

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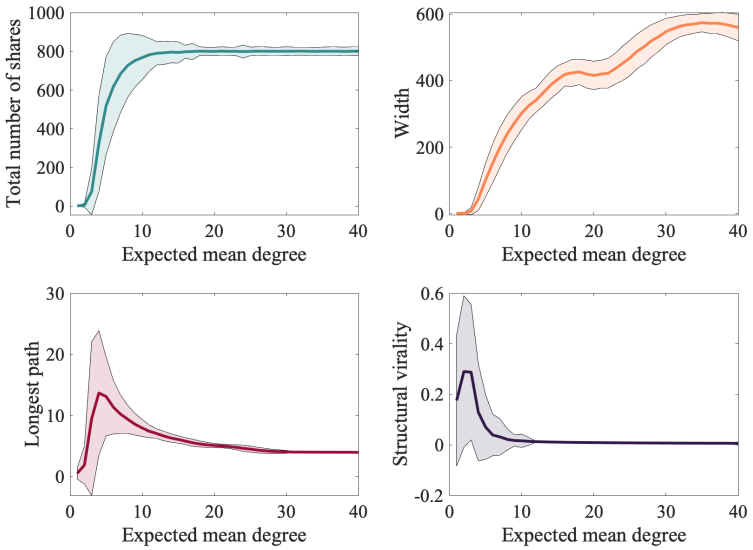

FIGURE 1. The effect of varying the expected mean degree λ of a network on the total number of content shares, the width, the longest-path length, and the structural virality of dissemination trees of our content-spreading model on configuration-model networks when the opinion value is $x_0 = 0.2$. We do not see qualitative differences in this figure when x_0 is changed; compare to Figure 6 in the manuscript where $x = 0.5$. The solid curves give means across 1000 realizations, and the shaded regions give the standard deviations. In each realization, we generate a 2000-node configuration-model network with a degree sequence from a Poisson distribution with mean λ. We vary λ from 1 to 40 in increments of 1. Each realization has different initial node opinions, which we draw uniformly at random from $(0, 1)$. The receptiveness parameter is $c = 0.2$. In each realization, we draw a new degree sequence and a new set of node opinions.

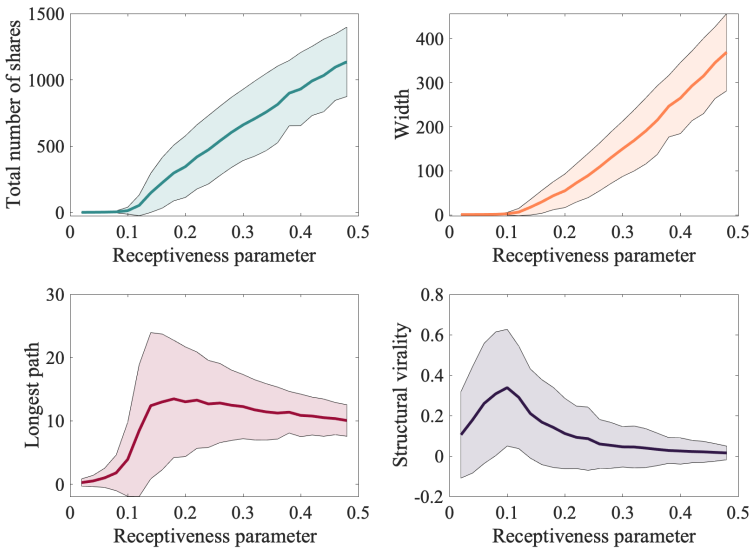

FIGURE 2. The effect of varying the receptiveness parameter c on the total number of content shares, the width, the longest-path length, and the structural virality of dissemination trees of our content-spreading model on configuration-model networks when the opinion value is $x_0 = 0.15$. We do not see qualitative differences in this figure when x_0 is changed; compare to Figure 7 in the manuscript where $x = 0.5$. The solid curves give means across 1000 realizations, and the shaded regions give the standard deviations. In each realization, we generate a 2000-node configuration model network with a degree sequence from a Poisson distribution with mean $\lambda = 5$. Each realization has different initial node opinions, which we draw uniformly at random from $(0, 1)$. We vary c from 0.02 to 0.48 in increments of 0.02. In each realization, we draw a new degree sequence and a new set of node opinions.