## [P12] Percolation transitions under the Achlioptas processes in growing networks

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We study an explosive percolation transition under the so-called Achlioptas processes in growing networks. Every time step, a node is added to the system one by one, whereas in the static network, the number of nodes in the system remains constant during the evolution of the network. At each time step, a link is added between the two nodes that is optimally chosen to suppress the growth of a giant cluster among $m$ candidate nodes randomly selected. It is known that the model with $m = 2$ undergoes an infinite-order phase transition. We find that when $m \geq 3$, the transition becomes second-order. Because small clusters are relatively rare at early stage of link-adding processes in the growing network compared with that in the static network, the suppression effect becomes relatively weaker. As a result, we find that the critical exponent $\beta$ associated with the order parameter decreases with $m$ algebraically in growing networks, whereas it does exponentially in static networks. We obtain other features of the explosive percolation transitions in growing networks as a function of $m$.