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Lutz Warnke* (warnke@math.gatech.edu), Georgia Institute of Technology, Atlanta, and
Svante Janson, Uppsala University. *Preferential attachment without vertex growth: emergence of the giant component.*

We study the following preferential attachment variant of the classical Erdős–Rényi random graph process (studied earlier by Pittel, Ben-Naim–Krapivsky, and others). Starting with an empty graph on n vertices, new edges are added one-by-one, and each time an edge is chosen with probability roughly proportional to the product of the current degrees of its endpoints (note that the vertex set is fixed). We determine the asymptotic size of the giant component in the so-called supercritical phase, confirming a conjecture of Pittel from 2010. Our proof uses a simple method: we condition on the vertex degrees (of a multigraph variant), and use known results for the configuration model. Based on joint work with Svante Janson. (Received September 10, 2019)