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critical random graphs.*

Over the last few years a wide array of random graph models have been postulated. Most of these models come with a parameter t (usually related to edge density) and a (model dependent) critical time t_c which specifies when a giant component emerges. There is evidence to support that for a wide class of models, under moment conditions, the nature of this emergence is universal and looks like the classical Erdős-Rényi random graph, in the sense that (a) sizes of maximal components in the critical scaling window scale like $n^{2/3}$ and (b) the structure of components in this window (rescaled by $n^{-1/3}$) converge to random fractals. Till date, (a) has been proven for a number of models using different techniques while (b) has been proven for the classical Erdős-Rényi random graph. We develop a general program for proving such results. Based on joint work with Nicolas Broutin, Souvik Dhara, Remco van der Hofstad, Sanchayan Sen and Xuan Wang. (Received August 13, 2019)