Global survival of tree-like branching random walks.

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The reproduction speed of a continuous-time branching random walk is proportional to a positive parameter λ. There is a threshold for λ, which is called λ_w, that separates almost sure global extinction from global survival. Only for some classes of branching random walks it is known that the global critical parameter λ_w is the inverse of a certain function of the reproduction rates, which we denote by K_w. We provide here new sufficient conditions which guarantee that the global critical parameter of tree-like branching random walks equals $1/K_w$. This result is part of a joint work with Bertacchi, D. and Zucca, F. (ALEA, v. 14, p. 381-402, 2017).