



Convergence in law for the branching random walk seen from its tip

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Considering a critical branching random walk on the real line. In a recent paper, Aidekon [3] developed a powerful method to obtain the convergence in law of its minimum after a log-factor normalization. By an adaptation of this method, we show that the point process formed by the branching random walk and its minimum converge in law to a Poisson point process colored by a certain point process. This result, confirming a conjecture of Brunet and Derrida [10], can be viewed as a discrete analog of the corresponding results for the branching brownian motion, previously established by Arguin et al. [5] [6] and Aidekon et al. [2].

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