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Steven P Lalley* (lalley@galton.uchicago.edu), Department of Statistics, University of Chicago, 5734 University Ave, Chicago, IL 60637, and **Bowei Zheng**. *Critical Branching Brownian Motion with Killing at 0*. Preliminary report.

We obtain sharp asymptotic estimates for hitting probabilities of a critical branching Brownian motion in one dimension with killing at 0. We also obtain sharp asymptotic formulas for the tail probabilities of the number of particles killed at 0. In the special case of double-or-nothing branching, we give exact formulas for both the hitting probabilities, in terms of elliptic functions, and the distribution of the number of killed particles. (Received August 10, 2015)