

Proof of Cantelli conjecture for some classes of functions

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In the present work the Cantelli conjecture for some classes of functions is proved. It is shown, in particular, for periodic, monotonic and periodically monotonic functions, and for functions that satisfy the following conditions: $g'(x) \leq C$, $g''(x) \leq C$ and $Eg'(W_1) = Eg''(W_1) = 0$, where W_1 is a stopped Brownian motion at time $t = 1$.