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THE EXPANSION THEOREM FOR THE DEVIATION INTEGRAL

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The so-called deviation integral (functional) describes the logarithmic asymptotics of the probabilities of large deviations for random walks generated by sums of random variables or vectors. Here an important role is played by the expansion theorem for the deviation integral in which, for an arbitrary function of bounded variation, the deviation integral is represented as the sum of suitable integrals of the absolutely continuous, singular, and discrete components composing this function. The expansion theorem for the deviation integral was proved by A. A. Borovkov and the author in the article "Large deviation principles for random walk trajectories. I" (see *Teor. Veroyatnost. i Primenen.*, 2011, **56** (4), 627–655 (2011) or *Theory Probab. Appl.* **56** (4), 538–561 (2012)) under some simplifying assumptions. In this article, we waive these assumptions and prove the expansion theorem in the general form.

Key words and phrases: Cramér's condition, deviation function, random walk, deviation functional, deviation integral, variation of a function.

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