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**Deviation probabilities for randomized decomposable statistics in a polynomial scheme.**

(English. Russian original) [Zbl 0662.60041](#)

*Sov. Math., Dokl.* 36, 583-585 (1988); translation from *Dokl. Akad. Nauk SSSR* 297, 1062-1064 (1987).

Consider a randomized decomposable statistic, i.e.  $R_N = \sum_1^N f_{mN}(\nu_m)$ , where  $\nu = (\nu_1, \dots, \nu_N)$  has a polynomial distribution  $M(n; p_1, \dots, p_n)$  and  $f_{mN}(x)$  is a random function of the nonnegative integer argument  $x$ ,  $m = 1, \dots, N$ .

The authors present four theorems (without proofs) establishing large deviation asymptotics of  $P(R_N > x(Var R_N)^{1/2})$  in the zones  $x = O((\log N)^{1/2})$ ,  $x = o(N^{1/6})$ ,  $x = o(N^{1/2})$ , and  $x \sim const N^{1/2}$ , under the corresponding conditions on the functions  $f_{mN}(\cdot)$ .

Reviewer: [J.Steinebach](#)

**MSC:**

[60F10](#) Large deviations

[62E20](#) Asymptotic distribution theory in statistics

**Keywords:**

[polynomial scheme](#); [randomized decomposable statistic](#); [large deviation asymptotics](#)