CORRECTION
THE PROBABILITIES OF LARGE DEVIATIONS FOR A CERTAIN CLASS OF STATISTICS ASSOCIATED WITH MULTINOMIAL DISTRIBUTIONS

SHERZOD M. MIRAKHMEDOV*

Received December 28, 2020. Accepted January 8, 2021.

There are misprints in the statements of Theorem 2.1 and 2.2 of the article.

In the relations (2.7) and (2.8) it must be written $R_N(\eta)$ instead of $R_N$, and $O(\frac{1+x\sqrt{N}}{N})$ instead of $o(\frac{1+x\sqrt{N}}{N})$.

The initial sentence of condition (ii) of Theorem 2.2 was omitted. The corrected variant is

**Theorem 2.2.** Let $n \to \infty$, $N \to \infty$, $p_{\text{max}} \to 0$ and the functions $h_m(\cdot)$ be non-negative. If

(i) For each integer $s \in [3, k_n]$ there exist non-negative $a_1$, $a_2$ and $b_1$, $b_2$ such that

$$E\left((\xi_m - np_m)^2 h_m^s(\xi_m)\right) = O\left(s^a(n p_m)^b Eh_m^s(\xi_m)\right),$$

where $a = a_1$, $b = b_1$ for all $m \in \mathcal{N} \subseteq (1, 2, \ldots, N)$, and $a = a_2$, $b = b_2$ for all $m \in (1, 2, \ldots, N) \setminus \mathcal{N}$, and

$$k_n = o\left(\min(p_{\text{max}}^{-1}, K_n(a_1, b_1), K_n(a_2, b_2))\right),$$

(ii) For each integer $s \in [3, k_n]$ there exists $\omega_m > 0$ and a sequence of positive numbers $V_n$ such that for some $\nu \geq 1$

$$|C_s(h_m(\xi_m))| \leq (s!)^{1+\nu} V_n^{s-2} \omega_m^2, \quad m = 1, \ldots, N,$$
then for all $x_N$ such that

$$0 \leq x_N = o \left( \min \left( W_{N}^{1/(1+2\nu)}, k_n^{1/2} \right) \right), \quad (2.12)$$

where $W_N = V_n^{-1} \sigma_N \min(1, \sigma_N^2/\tilde{\omega}_N^2), \tilde{\omega}_N^2 = \omega_1^2 + ... + \omega_N^2$, it holds

$$P \{ R_N(\eta) > x_N \sigma_N + A_N \} = (1 - \Phi(x_N)) \left( 1 + O \left( (x_N + 1) W_N^{-1/(1+2\nu)} \right) \right), \quad (2.13)$$

and

$$P \{ R_N(\eta) < -x_N \sigma_N + A_N \} = \Phi(-x_N) \left( 1 + O \left( (x_N + 1) W_N^{-1/(1+2\nu)} \right) \right). \quad (2.14)$$

At last, Corollary 3.6 should be read as Theorem 3.6, proof of which follows from Theorem 2.2 alike to proofs of Theorems 3.5 and 3.7.