

CORRECTION NOTES AND ACKNOWLEDGMENTS OF PRIORITY

CORRECTIONS TO "STATISTICAL METHODS IN MARKOV CHAINS"

BY PATRICK BILLINGSLEY

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E. S. Keeping has pointed out a mistake in the proof of Theorem 2.1 of the above-titled paper (*Ann. Math. Stat.*, Vol. 32 (1961), pp. 12–40). The error can be corrected by making the following changes. Replace the display preceding (2.4) by

$$N_{uv}^{(n)}(F) = \sum_w N_{uv}^{(n-1)}(F(w, v)),$$

and in the following line replace $f_{uw} > 0$ by $f_{vw} > 0$. Replace (2.4) by

$$F_{vu}^* = \sum_w f_{vw} f_w^{-1} F_{wu}^*(w, v).$$

In line 1, page 15, replace $F^*(u, w)$ by $F^*(w, v)$, "column" by "row", and

$$F_{vw}^*(u, w) = F_{vw}^*$$

by $F_{wu}^*(w, v) = F_{wu}^*$. In line 3, replace $\sum_w f_{uw}^* F_{vw}^*$ by $\sum_w f_{vw}^* F_{wu}^*$ in two places.

Misprints: p. 13, line 27, for 1 read p_j ; p. 22, line 19, for i read 1; a factor of 2 is missing on the right in the first display on p. 26, and on the left in (5.4), (5.5), and (5.6).

CORRECTION TO "A CONSERVATIVE PROPERTY OF BINOMIAL TESTS"

BY H. A. DAVID

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In the proof of inequality (1) of the above note (*Ann. Math. Stat.*, Vol. 31 (1960), pp. 1205–1207) it is tacitly assumed, near equation (4), that P can be a maximum only if $\Pr(S_{n-1} \geq a_n)$ is a maximum for any given π_n . I am indebted to Dr. W. Hoeffding for pointing this out. His proof, cited in my note, establishes the inequality without such an assumption.

ACKNOWLEDGMENT OF PRIORITY

BY V. P. GODAMBE

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In connection with my article "An optimum property of maximum likelihood estimation" (*Ann. Math. Stat.*, Vol. 31 (1960), pp. 1208–1211), I wish to ac-

knowledge that Professor S. S. Wilks proved a special case of my theorem in his article "Shortest average confidence intervals from large samples," (*Ann. Math. Stat.*, Vol. 9 (1938), p. 172), which was overlooked during my research.

CORRECTION TO

"A PROOF OF WALD'S THEOREM ON CUMULATIVE SUMS"

BY N. L. JOHNSON

University College, London

The following correction should be made in the above-titled article (*Ann. Math. Stat.*, Vol. 30 (1959), pp. 1245-7): On p. 1245, $\varepsilon(n) < \infty$ should be added to condition (iii) of Theorem 1.

CORRECTION TO

"ON THE MUTUAL INDEPENDENCE OF CERTAIN STATISTICS"

BY C. G. KHATRI

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I am indebted to Robert Wijsman for calling my attention to the following misprints in the above mentioned paper (*Ann. Math. Stat.*, Vol. 30 (1959), pp. 1258-1262).

(i) Page 1258, the last two lines of (2.2) should read "the elements below the principal diagonals are

$$t_{ji} = |A_{ji}| / (|A_{ii}| \cdot |A_{i-1, i-1}|)^{\frac{1}{2}},$$

$$A_{ji} = \begin{pmatrix} s_{11} & \cdots & s_{1i} \\ \cdots & \cdots & \cdots \\ s_{i-1, 1} & \cdots & s_{i-1, i} \\ s_{j1} & \cdots & s_{ji} \end{pmatrix} : i \times i (j \geq i)$$

and the vertical bars on both sides of a matrix denote the determinant of that matrix."

(ii) Page 1259, the reference of (2.7) should be "Ingram Olkin, Institute of Statistics Mimeographed Series No. 43 (1951), p. 74, Corollary 1.30" instead of [3].

(iii) Page 1259, replace the line after (2.8) by "where $dX = \prod_{ij} dx_{ij}$ and $dS = \prod_{i \geq j} ds_{ij}$."

(iv) Page 1259, Section 3, line 4, replace the last S by S_1 .

(v) Page 1259, Section 3, line 5, the matrix $I - ZZ'$ should be in vertical bars rather than in parentheses.