CORRECTION: POISSON APPROXIMATIONS FOR TELECOMMUNICATIONS NETWORKS

T. C. BROWN¹ and P. K. POLLETT²

(Received April 1994)

Professor Andrew Barbour (Institut für Angewandte Mathematik, Universität Zürich) has pointed out to us that the conditional intensity specified on Page 356 of our paper is incorrect and, consequently, so too is the bound (14) and the expression on Page 358 for the variance of the conditional intensity, given by (15). This variance should be 0 if \( \omega = 1 \), where recall that \( \omega = \omega(r) \) is uniquely determined by \( r_\omega = k \), while if \( \omega > 1 \), the variance is given by

\[
\text{Var} \, \gamma'_k(s) = (q_j^r)^2 \alpha_j \left( \sum_{n=0}^{\infty} \phi_j(n+1)\pi_j(n) - \alpha_j \right),
\]

where \( j = j(r) \) is uniquely determined by \( r_{\omega-1} = j \). The bound which should replace (14) is given by

\[
|P(A) - \Pi(A)| \leq t \sum_r q_j^r \phi_j(r) \rho_j(r)^{1/2} (1 - \rho_j(r))^{1/2},
\]

where the summation is over all \( r \in R_k \) such that \( \omega(r) > 1 \).

References


¹Department of Mathematics, University of Western Australia, WA 6009
²Department of Mathematics, University of Queensland, Qld 4072
© Australian Mathematical Society, 1994, Serial-fee code 0334-2700/94