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# CORRECTION: POISSON APPROXIMATIONS FOR TELECOMMUNICATIONS NETWORKS

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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 $\omega = \omega(\mathbf{r})$ is uniquely determined by $r_\omega = k$, while if $\omega > 1$, the variance is given by

$$\operatorname{Var} \gamma_k^{\mathbf{r}}(s) = (q_j^{\mathbf{r}})^2 \alpha_j \left( \sum_{n=0}^{\infty} \phi_j(n+1)\pi_j(n) - \alpha_j \right),$$

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

$$|P(A) - \Pi(A)| \le t \sum_{\mathbf{r}} q_{j(\mathbf{r})}^{\mathbf{r}} \phi_{j(\mathbf{r})} \rho_{j(\mathbf{r})}^{1/2} (1 - \rho_{j(\mathbf{r})})^{1/2},$$

where the summation is over all $\mathbf{r} \in \mathscr{R}_k$ such that $\omega(\mathbf{r}) > 1$.

## References

[1] T. C. Brown and P. K. Pollett, "Poisson approximations for telecommunications networks", *J. Austral. Math. Soc. Ser. B* **32** (1991) 348–364.

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