CORRECTION

LIMIT THEOREMS FOR COUPLED CONTINUOUS TIME RANDOM WALKS


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The converse portion of Theorem 2.2 requires an additional condition, that the probability measure \( \omega \) is such that (2.10) assigns finite measure to sets bounded away from the origin. The argument on page 735 must consider \( B_1 \) and \( B_2 \) such that at least one is bounded away from zero, not just the case where both are bounded away from zero. The condition on \( \omega \) ensures that the integral on page 735 l.–2 is finite, which is obviously necessary.

The limit process in Theorem 3.4 should read \( A(E(t)–) \). If \( A(t) \) and \( D(t) \) are dependent, this is a different process than \( A(E(t)) \). To clarify the argument, note that

\[
\lim_{h \downarrow 0} \frac{1}{h} P\{A(s) \in M, s < E(t) \leq s + h\} = P\{A(s–) \in M | E(t) = s\} p_t(s),
\]

where \( p_t \) is the density of \( E(t) \), since \( s < E(t) \) in the conditioning event. For an alternative proof, see Theorem 3.6 in Straka and Henry [3]. Theorem 4.1 in [1] gives the density of \( A(E(t)–) \). Examples 5.2–5.6 in [1] provide governing equations for the CTRW limit process \( M(t) = A(E(t)–) \) in some special cases with simultaneous jumps. Especially, Example 5.5 considers the case where \( Y_i = J_i \) so that \( A(t) \) is a stable subordinator and \( E(t) = \inf\{x > 0: A(x) > t\} \) is its inverse or first passage time process. The beta density for \( A(E(t)–) \) given in that example agrees with the result in Bertoin [2], page 82. Note that here we have \( A(E(t)–) < t \) and \( A(E(t)) > t \) almost surely for any \( t > 0 \), by [2], Chapter III, Theorem 4.

REFERENCES


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