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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 ω 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 ω 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

$$\lim_{h\downarrow 0}\frac{1}{h}P\{A(s)\in M, s<E(t)\le s+h\}=P\{A(s-)\in M|E(t)=s\}p_t(s), \tag{1}$$

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 $E(t)=\inf\{x>0\colon A(x)>t\}$ 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.

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