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CORRECTION

DISCUSSION OF BROWNIAN DISTANCE COVARIANCE

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The proof of Lemma 3 in Kosorok (2009) is incorrect since the second equality in the display of the proof is, in fact, an inequality ($\leq$). Some results in Dueck et al. (2012) also indicate that Lemma 3 is not true. Moreover, it is not hard to obtain simple counterexamples. For example, if $X^{(2)}$ is a Rademacher random variable [i.e., $P(X^{(2)} = -1) = P(X^{(2)} = 1) = 1/2$] and $X^{(3)}$ is zero with probability 1, then $f_{\tilde{X}}(t) = \cos(t)$ and the inequality is strict for all t for which $|\cos(t)| \neq 1$.

Nevertheless, the conclusions of Lemma 6 in Kosorok (2009) remain valid, as shown in Lyons (2013), under even weaker conditions than those given in the statement of the lemma. Moreover, the other results of Kosorok (2009) are unaffected by Lemma 3 and thus remain valid.

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