CORRECTION

CENTRAL LIMIT THEOREMS FOR ADDITIVE FUNCTIONALS OF THE SIMPLE EXCLUSION PROCESS

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Definition 2.1 in the above paper is incorrectly stated. In the proof of Theorem 2.1, which gives an invariance principle for certain processes satisfying Definition 2.1, conditions in Definition 2.1 are sufficient to deduce finite-dimensional convergence, but not enough to apply a maximal inequality for "demimartingales" to obtain tightness. The problem is Definition 2.1, as stated, only considers "pair increment associations" and not more general associations needed for the demimartingale property. We slightly strengthen the definition here in this correction so that the proof of tightness in Theorem 2.1 holds. Details of how this is accomplished are given below.

By substituting the corrected Definition 2.1 for the previous one, all results in the article hold as written. In particular, Proposition 2.1, which is the link between Theorem 2.1 and the main results, and which states certain additive processes satisfy Definition 2.1, holds with the same argument.

CORRECTED DEFINITION 2.1. Let $\{\vec{\mathbf{v}}(t) = (v_1(t), \ldots, v_m(t)) : t \geq 0\}$ be an m-dimensional L^2 process with stationary increments. We say $\vec{\mathbf{v}}$ has weakly positive associated increments if

$$E\big[\phi\big(\vec{\mathbf{v}}(t+s) - \vec{\mathbf{v}}(s)\big)\psi\big(\vec{\mathbf{v}}(s_1), \ldots, \vec{\mathbf{v}}(s_n)\big)\big]$$
$$\geq E\big[\phi(\vec{\mathbf{v}}(t))\big]E\big[\psi\big(\vec{\mathbf{v}}(s_1), \ldots, \vec{\mathbf{v}}(s_n)\big)\big]$$

for all coordinatewise increasing functions $\phi : \mathbb{R}^m \to \mathbb{R}$ and $\psi : (\mathbb{R}^m)^n \to \mathbb{R}$, and all $s, t \geq 0$, $0 \leq s_1 < \cdots < s_n = s$ and $n \geq 1$.

We remark the earlier Definition 2.1 only stipulated the pair condition

$$E\big[\phi(\vec{\mathbf{v}}(t+s) - \vec{\mathbf{v}}(s))\psi(\vec{\mathbf{v}}(s))\big] \geq E[\phi(\vec{\mathbf{v}}(t))]E[\psi(\vec{\mathbf{v}}(s))].$$

We now indicate how the modified definition applies in the proof of tightness in Theorem 2.1. Following standard tightness arguments, one needs to prove