

CORRECTION TO "STOCHASTIC INTEGRAL OF  $L_2$ -FUNCTIONS  
WITH RESPECT TO GAUSSIAN PROCESSES''\*)

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The proof of (7) and (8) of Lemma 4 as given on p. 179 is incorrect. To give a correct proof with as little change as possible, replace the condition 3° on p. 176 by the slightly stronger condition that  $\partial^2\Gamma/\partial t\partial s$  is continuous on  $T_1 \cup T_2$ . The equation (13) on p. 179 should then be replaced by the following:

For  $k \neq l$

$$\begin{aligned}
 (14) \quad \Delta\Gamma_{k,l} &= \int_{[a_{k-1}, a_k]} \frac{\partial\Gamma}{\partial s}(s, a_l)m_L(ds) - \int_{[a_{k-1}, a_k]} \frac{\partial\Gamma}{\partial s}(s, a_{l-1})m_L(ds) \\
 &= \int_{[a_{k-1}, a_k]} \left\{ \int_{[a_{l-1}, a_l]} \frac{\partial^2\Gamma}{\partial t\partial s}(s, t)m_L(dt) \right\} m_L(ds) \\
 &= \int_{[a_{k-1}, a_k] \times [a_{l-1}, a_l]} \frac{\partial^2\Gamma}{\partial t\partial s}(s, t)m_L(d(s, t)) \\
 &= \frac{\partial^2\Gamma}{\partial t\partial s}(a_k^*, a_l^*)(a_k - a_{k-1})(a_l - a_{l-1})
 \end{aligned}$$

with some  $a_k^* \in [a_{k-1}, a_k]$  and  $a_l^* \in [a_{l-1}, a_l]$  from the continuity of  $\partial^2\Gamma/\partial t\partial s$ . Then from the convergence of the improper Riemann integral of  $\partial^2\Gamma/\partial t\partial s$  on  $T_1 \cup T_2$ , for  $\varepsilon > 0$  there exists  $\eta > 0$  such that

$$\left| S_1(\mathfrak{B}) - \int_{T_1 \cup T_2} \frac{\partial^2\Gamma}{\partial t\partial s}(s, t)dsdt \right| < \varepsilon \quad \text{whenever } |\mathfrak{B}| < \eta.$$

From this and (12) we have (7). In exactly the same way (8) follows from (14). Also (10) in the proof of Theorem 2 can be established by using (14).

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\*) Tôhoku Math. J., Vol. 27 (1975), 175-186.

