

Correction to the paper
“Random functionals on $K\{M_p\}$ spaces”
(Studia Math., 39 (1971), pp. 233–240)

by

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In the paper in question, the proof of Lemma 4 is incomplete. More specifically when $f(\omega, \cdot)$ is approximated by continuous functions $f_n(\omega, \cdot)$ it was tacitly assumed that $f_n(\cdot, t)$ is measurable for all n and t . This, however, is not a consequence of the approximation theorem.

Lemma 4 is used in the proof of Theorem 2 to establish the measurability of the functions $h_a(\cdot, t)$. However, we can construct a separate proof of the measurability using Theorem 1.

Let Γ be as in the proof of Theorem 1 and $x \in \Gamma$, where $x = (0, \dots, M_p C_{[0,t]}, \dots, 0)$, $C_{[0,t]}$ being the characteristic function of $[0, t]$. From part (b) of the proof of Theorem 1

$$L^*(\omega, x) = \int_0^t M_p(s) f_a(\omega, s) ds = h_a(\omega, t)$$

but $L^*(\cdot, x)$ is measurable and hence so is $h_a(\cdot, t)$.

Although we have not remedied the defect in the proof of Lemma 4, Urbanik [1], pp. 569, seems to use the result so it may be known.

We also note that line 23, page 237 should read

$$\Omega = \bigcup_{N=1}^{\infty} \bigcap_{\varphi \in K} A_N(\varphi).$$

References

- [1] K. Urbanik, *Generalized stochastic processes with independent values*, Proc. Fourth Berkeley Symp. II, pp. 569–580.

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