ISSN 0005-1179, Automation and Remote Control, 2017, Vol. 78, No. 7, pp. 1302–1303. © Pleiades Publishing, Ltd., 2017.
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ERRATA

Erratum to: "Shaping Filter Design with a Given Mean Anisotropy of Output Signals" [*Automation and Remote Control* 3, 358 (2013)]

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Received April 4, 2017

DOI: 10.1134/S0005117917070116

I.G. Vladimirov noted that the paper [1] contains the following errors and unclear formulations. In the sentence "We assume that function f is absolutely continuous with respect to g, i.e., if $g(x) = 0$ on $x \in T \subset \mathbb{R}^m$ then also $f(x) = 0$ on T" on p. 359 of the paper we meant absolute continuity of probability distributions with densities f and g on the set T. In the sentence "or, which is the same, with system (2.4)" on p. 360 of the paper we consider the case when the spectral density corresponding to the sequence is a rational function of complex parameter z for the transition function of the generating filter. Formula

$$S(\omega) = \widehat{G}^*(\omega)\widehat{G}(\omega)$$

on p. 361 of the paper should read

$$S(\omega) = \widehat{G}(\omega)\widehat{G}^*(\omega).$$

Formula

$$G(z) = D + \frac{CB}{(z-a)^n}$$

on p. 363 of the paper should read

$$G(z) = D + \frac{CB}{z-a}$$

with degree 1 in the denominator. The formula on p. 369 of the paper for an estimate of the state forecast vector $\widehat{x}_{k+1} = \mathbf{E}[x_{k+1}|W_{\leqslant k}]$ of the generating filter should read

$$\widehat{x}_{k+1} = \mathbf{E}(x_{k+1}|W_{<k}) + \mathbf{cov}(x_{k+1}, w_k|W_{<k})\mathbf{cov}(w_k|W_{<k})^{-1}(w_k - \mathbf{E}(w_k|W_{<k})),$$

where $W_{<k} = \{w_j\}_{j<k}$ is the prehistory of sequence w up to the time moment k (non-inclusive), and $W_{\leqslant k} = \{w_j\}_{j\leqslant k} = W_{<k+1}$ is the prehistory that also contains the current value of the sequence, and which uses the corresponding conditional covariance matrices and conditional averages (see the original proof of Theorem 1 on pp. 31–32 of the work [2]). In the considered Gaussian case, conditional averages $\widehat{x}_{k+1}$ and $\mathbf{E}(w_k|W_{<k})$ are linear functions of prehistories $W_{\leqslant k}$ and $W_{<k}$ respectively.

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2. Diamond, P., Vladimirov, I.G., Kurdyukov, A.P., and Semyonov, A.V., Anisotropy-based Performance Analysis of Linear Discrete Time Invariant Control Systems, *Int. J. Control*, 2001, vol. 74, no. 1, 28–42.