Michálek, Jiří

Normal covariances. (English) Zbl 0641.60043

Kybernetika 24, No. 1, 17-27 (1988).

Covariances R(s,t) are called normal if they can be written in the form

$$R(s,t)=\int_{-\infty}^{\infty}\int_{-\infty}^{\infty}e^{\lambda(s+t)}e^{i\mu(s-t)}dF(\lambda,\mu),\quad (s,t)\in R^2.$$

Some properties and characteristics of normal covariances are proved (in addition to previous results of the author): 1) they are continuous on R^2; 2) they can be characterized as a function which is nonnegative definite in some sense; 3) they can be characterized using the corresponding reproducing kernel Hilbert space.

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