ANNALES
POLONICI MATHEMATICI
XXI (1969)

Correction to paper "Integral representation for even positive definite functions"

by A. FRIEDMAN (Evanston, Ill.)

Professor A. Edward Nussbaum has kindly drawn our attention to a mistake in our paper with the above title, which appeared in Ann. Polon. Math. 16 (1965), pp. 267-283. On page 278, line 11 from the top and on page 279 line 8 from the bottom, it is falsely stated that

$$K(x, y)|_{y_2=x_2=x_2^0} = 2f(x_1+y_1, 0)+2f(x_1-y_1, 0) .$$

The correct form should be:

$$K(x, y)|_{y_2=x_2=x_2^0} = f(x_1+y_1, 2x_2^0)+f(x_1-y_1, 2x_2^0)+f(x_1+y_1, 0)+f(x_1-y_1, 0) .$$

This change affects the statement of Theorem 1. In the case of two variables, the new statement is:

Let $f(x_1, x_2)$ be a continuous even positive definite (e. p. d.) function and assume that the e. p. d. functions $f(x_1, x_2^0)+f(x_1, 0)$, $f(x_1^0, x_2)+f(0, x_2)$ (of one variable) have a unique integral representation for every fixed x_2^0, x_1^0. Then $f(x_1, x_2)$ has a unique integral representation of the form (2′), where $d_\sigma(t)$ is even and $\int_{\mathfrak{m}} |e^{ixt}| d_\sigma(t) < \infty$ for all x.

The corollary to Theorem 1 now becomes:

If $f(x_1, x_2)$ is an e. p. d. function satisfying

$$f(x_1, x_2^0) = O\left(\exp(ax_1^2)\right), \quad f(x_1^0, x_2) = O\left(\exp(ax_2^2)\right)$$

for any x_2^0, x_1^0 where a is a constant (depending on x_2^0, x_1^0), then $f(x_1, x_2)$ satisfies (3) (with another a).

NORTHWESTERN UNIVERSITY
Evanston, Illinois

Reçu par la Rédaction le 26. 2. 1968