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ON FOURIER TRANSFORMATION OF SOME
CLASSES OF SQUARE SUMMABLE FUNCTIONS
ON A HILBERT SPACE WITH GAUSS MEASURE

Abstract

In the paper we distinguish three classes of functions possessing n -th order derivatives with respect to finite and denumerable number of directions with square summable different expressions.

Necessary and sufficient conditions are imposed on an analytic function of a Hilbert space so that it be a Fourier transformation with respect to Gauss measure of the indicated classes of functions.