

Valeh H. HAJIEV

ON APPLICATION OF FOURIER-WIENER  
TRANSFORM TO THE LOCAL LIMIT THEOREM  
IN A HILBERT SPACE

Abstract

*Let on the Hilbert space  $X$  be given two measures  $\mu_0$  and  $\mu$ , moreover  $\mu_0$  is a Goursat measure, and  $\mu$  is absolutely continuous relative to  $\mu_0$  with the density from  $L_2(X, \mu_0)$ . Let  $f^{(n)}(x)$  be a density of  $n$ -fold convolution  $\mu^{*n}$  relatively to  $\mu_0$ . The conditions are given when  $f^{(n)}(x)$  is converges in  $L_2(X, \mu_0)$  as  $n \rightarrow \infty$ .*