

# On the Integral Square Measure of Deviation of a One Nonparametric Estimator of the Bernoulli Regression

PETRE BABILUA\* AND ELIZBAR NADARAYA\*\*

*\*Ivane Javakishvili Tbilisi State University,  
Department of Mathematics, Tbilisi, Georgia;*

*\*\*Ivane Javakishvili Tbilisi State University,  
Department of Mathematics, Tbilisi, Georgia*

E-mail: \*petre.babilua@tsu.ge; \*\*elizbar.nadaraya@tsu.ge

**Abstract.** The limiting distribution of the integral square deviation of a kernel-type nonparametric estimator of the Bernoulli regression function is established. The criterion of testing the hypothesis about the Bernoulli regression function is constructed. The question as to its consistency is studied. The asymptotic power of the constructed test is also studied for certain types of close alternatives.