On the One Nonparametric Estimate of Poisson Regression Function

Elizbar Nadaraya∗, Petre Babilua∗

∗Department of Mathematics, Faculty of Exact and Natural Sciences,

Ivane Javakhishvili Tbilisi State University, 13 University Str.,

Tbilisi 0186, Georgia, e-mails:

elizbar.nadaraya@tsu.ge; petre.babilua@tsu.ge

Abstract

The limiting distribution of the integral square deviation of kernel-type nonparametric estimator of Poisson regression function is established. The test of the hypothesis testing about Poisson regression function is constructed. The question of consistency of the constructed test is studied.

The power asymptotic of the constructed test is also studied for certain types of close alternatives.