

ON ESTIMATION OF INTEGRAL FUNCTIONAL OF DISTRIBUTION DENSITY

Grigol Sokhadze^{*}, Aleksander Tkeshelashvili^{**}

Iv. Javakhishvili Tbilisi State University, I.Vekua Institute of Applied Mathematics, Tbilisi, Georgia,
[*giasokhi1@i.ua](mailto:giasokhi1@i.ua), [**aleko611@mail.ru](mailto:aleko611@mail.ru)

The problem of consistency estimation of integral functional from distribution density and its derivatives is considered. For the density used estimation of Rosenblatt-Parzen and for the integral functional the “plug-in-estimator” is used. Theorems of Consistency and asymptotically normality are proved. Applications are given. The obtained results extended the results given in the paper [1].

Acknowledgement. This work was supported by Shota Rustaveli National Science Foundation Grant No FR/308/5-104/12.

References

1. Nadaraya E., Sokhadze G.: On Integral Functional of a Density. Communications in statistics – Theory and Methods. 2016 (in press)