ON ESTIMATION OF THE TWO DIMENSIONAL REGRESSION FUNCTION

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On the square $[0;1]^2$ consider two dimensional regression function of Bernoulli type $Y(x;y)$; $P\big(Y(x_i;y_j)=1\big)=p(x_i;y_j), P\big(Y(x_i;y_j)=0\big)=1-p(x_i;y_j)$. On the basis of sample $Y_{ij}=Y(x_i;y_j), i,j=1,2,\dots,n$ an estimation of unknown regression function $p(x;y)$ is constructed. Consistency and asymptotic normality of the estimation are proved.

This investigation is based paper [1] and extends its results.

References

1. Babilua P., Nadaraya E., Sokhadze G. About nonparametric estimation of the Bernoulli regression. Communication in statistics – Theory and Methods. Vol.42. Issue 22. 2013. p. 3989-4002.