तेजपुर विश्वविद्यालय
(केंद्रीय विश्वविद्यालय)
नपाम, तेजपुर - 784 028, असम, भारत

TEZPUR UNIVERSITY
(A Central University)
Napam, Tezpur - 784 028, Assam, India

Department of Mathematical Sciences

Report on research collaboration

between

Dr. Santanu Dutta, Department of Mathematical Sciences, Tezpur University

And

Dr. Koushik Saha, Department of Mathematics, Indian Institute of Technology, Bombay

Title of collaboration:

Pointwise and uniform convergence of multivariate kernel density estimators using random bandwidths

Summary of collaboration:

We obtain the rates of pointwise and uniform convergence of multivariate kernel density estimators using a random bandwidth vector obtained by some data-based algorithm. We are able to obtain faster rate for pointwise convergence. The uniform convergence rate is obtained under some moment condition on the marginal distribution. The rates are obtained under i.i.d. and strongly mixing type dependence assumptions.

Duration of collaboration:

The collaboration started in October 2014, Accepted 01 May 2015, Accepted author version posted online: 19 Apr 2016, Published online:19

Details of collaboration:

Details of collaboration could be found in the article-

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HEAD
Department of Mathematical Sciences
Tezpur University

Prof. Milan Nath
Head
Department of Mathematical Sciences
Tezpur University

Santanu Dutta
Professor
Department of Mathematical Sciences
Tezpur University