



k-Nearest neighbor density estimation on Riemannian Manifolds

[Guillermo Henry](#), [Andrés Muñoz](#), [Daniela Rodriguez](#)

(Submitted on 23 Jun 2011)

In this paper, we consider a k-nearest neighbor kernel type estimator when the random variables belong in a Riemannian manifolds. We study asymptotic properties such as the consistency and the asymptotic distribution. A simulation study is also consider to evaluate the performance of the proposal. Finally, to illustrate the potential applications of the proposed estimator, we analyzed two real example where two different manifolds are considered.

Comments: 17 pages, 5 figures

Subjects: **Statistics Theory (math.ST)**

Cite as: [arXiv:1106.4763](#) [math.ST]

(or [arXiv:1106.4763v1](#) [math.ST] for this version)

Submission history

From: Guillermo Henry [[view email](#)]

[v1] Thu, 23 Jun 2011 16:16:37 GMT (1218kb,D)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [Other formats](#)

Current browse context:

math.ST

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1106](#)

Change to browse by:

[math](#)

[stat](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

