

# Publication list of Lyudmila Sakhanenko<sup>1</sup>

## Submitted for Publication in Refereed Journal

1. Carmichael, O. and Sakhanenko, L. (2013) Estimation of integral curves from high angular resolution diffusion imaging (HARDI) data. Submitted, 25 pages.
2. Cao, G., Sakhanenko, L., Yang, L., Carmichael, O. (2012) Spline estimation of integral curves from noisy vector field data. Submitted, 40 pages.
3. Carmichael, O. and Sakhanenko, L. (2013) Estimation of integral curves from noisy diffusion tensor data. Submitted, 38 pages.
4. Sakhanenko, L. (2012) Estimation of Integral Curves from DTI Data. Submitted, 16 pages.

## Published / In Press in Refereed Journals

5. Sakhanenko, L. (2013) How to choose the number of gradient directions for estimation problems from noisy diffusion tensor data. In press in *Festschrift for Hira Koul*, 7 pages.
6. Sakhanenko, L. (2012) Asymptotics of suprema of weighted Gaussian fields with applications to kernel density estimators. Accepted by *Theory of Probab. Appl.*, 42 pages.
7. Sakhanenko, L. (2012) Numerical issues in estimation of integral curves from noisy diffusion tensor data. *Statistics & Probability Letters* 82, 1136–1144.
8. Sakhanenko, L. (2011) Global rate optimality in a model for Diffusion Tensor Imaging. *Theory of Probab. Appl.*, 55, 1, 77-90.
9. Sakhanenko, L. (2010) Lower bounds for accuracy of estimation in Diffusion Tensor Imaging. *Theory of Probab. Appl.*, 54, 1, 168-177.
10. Sakhanenko, L. (2009) Testing group symmetry of a multivariate distribution. *Symmetry*, 1(2), 180-200; doi:10.3390/sym1020180
11. Koltchinskii, V., Sakhanenko, L. (2009) Asymptotics of Statistical Estimators of Integral Curves. *High Dimensional Probability V: The Luminy Volume* Houdré, Koltchinskii, Mason, and Peligrad (Eds), IMS Collections, Beachwood, Ohio, pp. 326-337.
12. Sakhanenko, L. (2008) Testing for Ellipsoidal Symmetry: A comparison study. *Computational Statistics & Data Analysis*, 53, 565-581.
13. Koltchinskii, V., Sakhanenko, L., Cai, S. (2007) Integral Curves of Noisy Vector Fields and Statistical Problems in Diffusion Tensor Imaging: Nonparametric Kernel Estimation and Hypotheses Testing. *Annals of Statistics*, Vol. 35, No. 4, 1576-1607.
14. Koul, H., Sakhanenko, L. (2005) Goodness-of-fit testing in regression: A finite sample comparison of bootstrap methodology and Khmaladze transformation. *Statistics & Probability Letters* 74, 290-302.
15. Giné, E., Koltchinskii, V., Sakhanenko L. (2004) Kernel Density Estimators: Convergence in distribution for weighted sup-norms. *Probability Theory and Related Fields*, vol. 130, No. 2, 167-198.
16. Giné, E., Koltchinskii, V., Sakhanenko, L. (2003) Convergence in distribution of Self-Normalized Sup-Norms of Kernel Density Estimators. *High Dimensional Probability III*. Hoffmann-Jorgensen, Marcus and Wellner (Eds), Birkhauser, Boston, pp. 241-253.
17. Borisov, I., Sakhanenko, L. (2001) The central limit theorem for generalized von Mises statistics with degenerate kernels. (Russian) *Mat. Tr.* 4, no. 1, 3-17.

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18. Koltchinskii, V., Sakhanenko, L. (2000) Testing for ellipsoidal symmetry of a multivariate distribution. *High Dimensional Probability II*. E. Giné, D. Mason and J. Wellner (Eds) Progress in probability, Birkhäuser, Boston, pp. 493-510.

19. Borisov I., Sakhanenko L. (2000) The Central Limit Theorem for generalized canonical von Mises statistics. *Siberian Advances in Mathematics* vol. 10, No. 4, 1-14.

**Papers in progress.**

1. Sakhanenko, L. Testing for skew elliptical symmetry of a multivariate distribution.
2. Sakhanenko, L., Carmichael O. Statistical estimation of curves based on angiogram data.
3. Sakhanenko, L., Carmichael O. Comparison of FDT with Carmichael-Sakhanenko approach.
4. Sakhanenko, L. Performance of Carmichael-Sakhanenko on tractometer datasets.