

## Publications by Michael Sørensen:

### In refereed Publications:

- [1] Normal variance-mean mixtures and  $z$ -distributions. Co-authors: O.E. Barndorff-Nielsen and J. Kent. *Internat. Statist. Review* **50**, 1982, 145–159.
- [2] On the relation between size and distance travelled for winddriven sand grains - results and discussion of a pilot experiment using coloured sand. Co-authors: O.E. Barndorff-Nielsen and J.L. Jensen. In B.M. Sumer and A. Müller (eds.): *Mechanics of Sediment Transport*, Balkema, Rotterdam, 1982, 55–64.
- [3] On the mathematical modelling of aeolian saltation. Co-author: J.L. Jensen. In B.M. Sumer and A. Müller (eds.): *Mechanics of Sediment Transport*, Balkema, Rotterdam, 1982, 65–72.
- [4] On maximum likelihood estimation in randomly stopped diffusion type processes. *Internat. Statist. Review* **51**, 1983, 93–110.
- [5] The fascination of sand. Co-authors: O.E. Barndorff-Nielsen, P. Blæsild and J.L. Jensen. In A.C. Atkinson and S.E. Fienberg (eds.): *A Celebration of Statistics*, Springer-Verlag, New York, 1985, 57–87.
- [6] The usefulness of tests for multivariate normality in physical anthropology. Co-author: J. Boldsen. *Ossa* **9-11**, 1985, 13–28.
- [7] Estimation of some aeolian saltation transport parameters: A reanalysis of Williams' data. Co-author: J.L. Jensen. *Sedimentology* **33**, 1986, 547–558.
- [8] On sequential maximum likelihood estimation for exponential families of stochastic processes. *Internat. Statist. Review* **54**, 1986, 191–210.
- [9] Classes of diffusion-type processes with a sufficient reduction. *Statistics* **17**, 1986, 585–596.
- [10] On the incubation time distribution and the Danish AIDS data. Co-authors: J.L. Boldsen, J.L. Jensen and J. Søgaaard. *J. R. Statist. Soc. A.* **151**, 1988, 42–43.
- [11] Exponential families of stochastic processes: A unifying semimartingale approach. Co-author: U. Küchler. *Internat. Statist. Review* **57**, 1989, 123–144.
- [12] Wind shear and hyperbolic distributions. Co-authors: O.E. Barndorff-Nielsen and J.L. Jensen. *Boundary-Layer Meteorology* **49**, 1989, 417–431.
- [13] A note on the existence of a consistent maximum likelihood estimator for diffusions with jumps. In Langer, H. and Nollau, V. (eds.): *Markov Processes and Control Theory*, Akademie-Verlag, Berlin, 1989, 229–234.
- [14] Some asymptotic properties of quasi likelihood estimators for semimartingales. In Mandel, P. and Husková, M. (eds.): *Proceedings of the Fourth Prague Symposium on Asymptotic Statistics*, Charles University, Prague, 1989, 469–479.

- [15] On quasi likelihood for semimartingales. *Stoch. Processes Appl.* **35**, 1990, 331–346.
- [16] Parametric modelling of turbulence. Co-authors: O.E. Barndorff-Nielsen and J.L. Jensen. *Phil. Trans. R. Soc. Lond.* **A 332**, 1990, 439–455.
- [17] Likelihood methods for diffusions with jumps. In Prabhu, N.U. and Basawa, I.V. (eds.): *Statistical Inference in Stochastic Processes*, Marcel Dekker, New York, 1991, 67–105.
- [18] Information quantities in non-classical settings. Co-author: O.E. Barndorff-Nielsen. *Computational Statistics and Data Analysis* **12**, 1991, 143–158.
- [19] On the temporal-spatial variation of sediment size distributions. Co-author: O.E. Barndorff-Nielsen. *Acta Mechanica [Suppl]* **2**, 1991, 23–35.
- [20] An analytic model of wind-blown sand transport. *Acta Mechanica [Suppl]* **1**, 1991, 67–81.
- [21] A review of recent progress in our understanding of aeolian sediment transport. Co-authors: R.S. Anderson and B.B. Willetts. *Acta Mechanica [Suppl]* **1**, 1991, 1–19.
- [22] Methodology of sieving small samples and calibration of sieve sets. Co-authors: K. Dalsgaard and J.L. Jensen. In J.P.M. Syvitsky (ed.): *Principles, Methods, and Application of Particle Size Analysis*, Cambridge University Press, Cambridge, 1991, 64–75.
- [23] A statistical model for the streamwise component of a turbulent velocity field. Co-authors: O.E. Barndorff-Nielsen and J.L. Jensen. *Annales Geophysicae* **11**, 1993, 99–103.
- [24] Stochastic models of sand transport by wind and two related estimation problems. *Internat. Statist. Rev.* **61**, 1993, 245–255.
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- [27] Statistical analysis of a spatial birth-and-death process model with a view to modelling linear dune fields. Co-author: J. Møller. *Scand. J. Statist.* **21**, 1994, 1–19.
- [28] A review of some aspects of asymptotic likelihood theory for stochastic processes. Co-author: O.E. Barndorff-Nielsen. *Int. Statist. Rev.* **62**, 1994, 133–165.
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- [38] Estimating functions for discretely observed diffusions: A review. In Basawa, I.V., Godambe, V.P. and Taylor, R.L. (eds.): *Selected Proceedings of the Symposium on Estimating Functions*. IMS Lecture Notes - Monograph Series, Vol. 32, 1997, 305–325.
- [39] On exponential families of Markov processes. Co-author: U. Küchler. *Journal of Statistical Planning and Inference* **66**, 1998, 3–19.
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- [41] Some stationary processes in discrete and continuous time. Co-authors: O.E. Barndorff-Nielsen and J.L. Jensen. *Adv. Appl. Prob.* **30**, 1998, 989 – 1007.
- [42] Aeolian mass transport near the saltation threshold. Co-author: K.R. Rasmussen. *Earth Surface Processes and Landforms*, **24**, 1999, 413 – 422.
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- [44] A note on limit theorems for multivariate martingales. Co-author: U. Küchler. *Bernoulli*, **5**, 1999, 483 – 493.
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- [50] Small-diffusion asymptotics for discretely sampled stochastic differential equations. Co-author: Masayuki Uchida. *Bernoulli*, **9**, 2003, 1051 – 1069.
- [51] On the rate of aeolian sand transport. *Geomorphology*, **59**, 2004, 53 – 62.
- [52] Estimation for discretely observed diffusions using transform functions. Co-authors: Leah Kelly and Eckhard Platen. *J. Appl. Prob.*, **41A**, 2004, 99 – 118.
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- [70] Maximum likelihood estimation for integrated diffusion processes. Co-author: Fernando Baltazar-Larios. In Chiarella, C. and Novikov, A. (eds.): *Contemporary Quantitative Finance: Essays in Honour of Eckhard Platen*, Springer, Heidelberg, 2010, 407 – 423.
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- [79] Introduction to the paper “Likelihood ratio tests in curved exponential families with nuisance parameters present only under the alternative”. Co-author: Nina Munkholt Jakobsen. In Nancy Reid and Torben Martinussen (eds.): *Inference, Asymptotics, and Applications – Selected papers of Ib Michael Skovgaard, with Introductions by his colleagues*, World Scientific, 2017, 301 – 307.
- [80] A generative angular model of protein structure evolution. Co-authors: Michael Golden, Eduardo García-Portugués, Kanti V. Mardi, Thomas Hamelryck, and Jotun Hein. To appear in *Molecular Biology and Evolution*.

**Miscellaneous short contributions:**

- [81] Review of the book “Semimartingales and Their Statistical Inference” by B.L.S. Prakasa Rao. *J. Amer. Statist. Ass.*, **95**, 2000, 1016 – 1017.
- [82] Contribution to the discussion of the paper “Bayesian analysis of single-molecule experimental data” by Kou, Xie and Liu. Co-author: Martin Jacobsen. *J. Roy. Statist. Soc., ser. C*, **54**, 2005, 502 – 503.
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- [85] Ole E. Barndorff-Nielsen’s scientific achievements. Co-authors: Eva B. Vedel Jensen, Mark Podolskij and Steen Thorbjørnsen. In Podolskij, Stelzer, Thorbjørnsen and Veraart (eds.): *Probability, Statistics and Their Applications*, Springer, 2016, xi – xvi.

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**Proceedings:**

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### Other Publications:

- [92] The Hanstholm experiment 1982. Sand grain saltation on a beach. Co-authors: J.L. Jensen, K. Rømer Rasmussen and B.B. Willetts. Research Report 125, 1984, Department of Theoretical Statistics, University of Aarhus, 66 p.
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**Lecture Notes in Danish:**

- [114] Basal Statistik, Department of Theoretical Statistics, University of Aarhus, 1997.
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