LIST OF PUBLICATIONS, date 23.6.2014/ Paavo Salminen

A. Peer-reviewed scientific articles

A1. Journal article

1. Martin-boundaries for some space-time Markov processes. *Z. Wahrscheinlichkeitstheorie und verw. Gebiete*, Vol. 55, p.41-53 (1981).
2. Mixing Markovian laws; with an application to path decompositions. *Stochastics*, Vol. 9, p. 223-231 (1983).
3. One-dimensional diffusions and their exit spaces. *Math. Scand.*, Vol. 54, p. 209-220 (1984).
4. Optimal stopping of one-dimensional diffusions. *Mathematische Nachrichten*, Vol. 124, p. 85-101 (1985).
5. On conditional Ornstein-Uhlenbeck processes. *Advances in Applied Probability*, Vol. 16, p. 920-922 (1984).
6. On the joint distribution of the maximum and its location for a linear diffusion. (Joint work with E. Csaki and A. Földes). *Annales de l'Institute de Henri Poincare - Probabilites et Statistiques,* Vol. 23, p. 179 -194 (1987).
7. On the first hitting time and the last exit time for a Brownian motion to/ from a moving boundary. *Advances in Applied Probability,* Vol. 20, p. 411-426 (1988).
8. On multiplicative excessive functions of a branching Brownian motion. *Probability Theory and Related Fields*, Vol. 85, p. 43-56 (1990).
9. Cutting Markovian trees. *Annales Academiae Scientiarum Fennicae, Series A.I. Mathematica*, Vol. 17, p. 123-137 (1992).
10. A ratio limit theorem for erased branching Brownian motion. *Stochastic Processes and their Applications*, Vol. 41, p. 215-222 (1992).
11. On a first passage problem for branching Brownian motions. (Joint work with I. Kaj). *Annals of Applied Probability*, Vol. 3(1), p. 173-185 (1992).
12. On the distribution of supremum of diffusion local time. *Statistics and Probability Letters,* Vol. 18, p. 219-225 (1993).
13. On the ultimate value of local time of one-dimensional super-Brownian motion. (Joint work with Ingemar Kaj). *Stochastic processes and their applications,* Vol. 59, p. 21-42 (1995).
14. On additive functionals of diffusion processes. (Joint work with Endre Csaki). *Studia Sci. Math. Hung.,* Vol. 31, p. 47-62 (1996).
15. On last exit decompositions of linear diffusions. *Studia Sci. Math. Hung.,* Vol. 33, p. 251-262 (1997).
16. Optimal stopping and American put options. *Theory of Stochastic Processes* Vol. 5 (1-2), p. 129-144 (1999)
17. On Russian options. *Theory of Stochastic Processes* Vol. 6 (3-4), p. 161-176 (2000)
18. On busy periods of the unbounded Brownian storage. (Joint work with Ilkka Norros). *Queueing Systems,* Vol. 39, p. 317-333, (2001)
19. A storage process with local time input. (Joint work with Petteri Mannersalo and Ilkka Norros). *Queueing Systems,* Vol. 46, p. 557-577, (2004)

20. Properties of perpetual integral functionals of Brownian motion with drift. (Joint work with Marc Yor). *Annales de l'Institute de Henri Poincare - Probabilites et Statistiques,* Vol. 41, p. 335-347 (2005). Prepublication PMA-845. (http://www.proba.jussieu.fr/publi.html).

21. On first range times of linear diffusions. (Joint work with Pierre Vallois). *Journal of Theoretical probability,* Vol. 18(3), p. 567-593 (2005). Prepublication de l'IECN 2003/22. (http://www.iecn.u-nancy.fr/Preprint/publis/index.html)

22. On some exponential integral functionals of BM(μ) and Bes(3). (Joint work with Andrei Borodin). *Zap. Nauchn. Semin. POMI*, Vol. 311, p. 51-78 (2004). Translated in *J. Math. Sciences*, Vol. 133(3), p. 1231-1248.

23. Diffusion local time storage. (Joint work with Marina Kozlova). *Stochastic Processes and their Applications*, Vol. 114, p. 211-229 (2004).

24. Perpetual integral functionals as hitting and occupation times. (Joint work with Marc Yor). *Electr. J. Probab.*, Vol. 10, p. 371-419 (2005).

25. On an occupation time identity for reflecting Brownian motion with drift. (Joint work with Marina Kozlova). *Periodica Math. Hung.*, Vol. 51(1-2), p. 189-198 (2005).

26. On occupation times of stationary diffusions. (Joint work with Marina Kozlova). *Electr. Comm. Probab.*, Vol. 10, p. 94-104 (2005).

27. A note on a.s. finiteness of perpetual integral functionals of diffusions. (Joint work with Davar Khoshnevisan and Marc Yor). *Electr. Comm. Probab.*, Vol. 11, p. 108-117 (2006).

28. On maximal increase and decrease for Brownian motion. (Joint work with Pierre Vallois). *Ann. Inst. Henri Poincaré, Probabilités et Statistiques* Vol. 43, p. 655-676 (2007).

29. On optimal stopping of Hunt and Lévy processes. (Joint work with Ernesto Mordecki). *Stochastics: An International Journal of Probability and Stochastic Processes*, Vol. 79(3-4), p. 233-251 (2007).

30. On excursion theory of linear diffusions. (Joint work with Pierre Vallois and Marc Yor). *Japanese Journal of Mathematics*, Vol. 2, p. 97-127 (2007).

31. Analysis of stochastic fluid queues driven by local time processes. (Joint work with Takis Konstantopoulus, Andreas Kyprianou, and Marina Sirviö). *Advances of Applied Probability*, Vol 40, p. 1072-1103 (2008).

32. On subexponentiality of the Lévy measure of the diffusion inverse local time; with applications to penalizations. (Joint work with Pierre Vallois). *Electr. J. Probab.*, Vol. 14, p. 1963-1991 (2009).

33. On hitting times of affine boundaries by reflecting Brownian motion and Bessel processes.(Joint work with Marc Yor). *Periodica Math. Hungar.*, Vol. 62(1), p. 75-101 (2011).

34. On fractional Ornstein-Uhlenbeck processes. (Joint work with Terhi Kaarakka). *Communications on Stochastic Analysis*, Vol. 5(1), p. 121-133 (2011).

35. On the excursions of reflected local time processes and stochastic fluid queues. (Joint work with T. Konstantopoulus and A. Kyprianou). *New Frontiers in Applied Probability - A Festschrift for Soeren Asmussen*, eds. P. Glynn, T. Mikosch, T. Rolski. *Journal of Applied Probability*, Spec. Vol. 48A, 79-98. Applied Probability Trust (2011).

36. Optimal stopping, Appell polynomials and Wiener-Hopf factorization. *Stochastics: An International Journal of Probability and Stochastic Processes*, Vol. 83(4-6), p. 611-622 (2011).

37. Optimal stopping of strong Markov processes. (Joint work with Sören Christensen and Bao Q. Ta). *Stochastic Processes and their Applications*, Vol. 123, 1136-1159 (2013).

A2. Review article

1. Brownian local time. *Encyclopaedia of Mathematics, Supplement II,* ed. M. Hazewinkel, p. 94-95. Kluwer Academic Publishers, Dordrecht (2000).

2. Brownian motion. *Encyclopedia of Acturial Sciences,* ed. Teugels and Sundt, Vol 1, p. 204-209. John Wiley & Sons, Ltd, Chichester (2004)

A3. Book section, chapters in research books

1. Brownian excursions, revisited. *Seminar on Stochastic Processes, 1983*, eds. E.Çinlar, K.L. Chung, R.K. Getoor. p. 161-187. Birkhäuser (1984).

2. On local times of a diffusion. *Séminaire de Probabilité, XIX*, eds. J. Azema, M. Yor. *LN in Mathematics,* Vol. 1123 p. 68-79. Springer Verlag (1985).

3. On spectral measures of strings and excursions of quasi diffusions. (Joint work with U. Küchler). *Séminaire de Probabilité, XXIII,* eds. J. Azéma, P. Meyer, M. Yor. *LN in Mathematics,* Vol. 1372, p. 490-502. Springer Verlag (1989).

4. On Tanaka's formula for symmetric Lévy processes. (Joint work with Marc Yor). *Séminaire de Probabilité, XL*, eds. C. Donati-Martin, M. Émery, A. Roualt, C. Stricker. *LN in Mathematics,* Vol. 1899 p. 265-286. Springer Verlag (2007).

A4. Conference proceedings

1. Optimal stopping of one-dimensional diffusions. *Trans. 9th Prague Conference on Information Theory, Statistical Decision Functions and Random Processes*, p. 163-168. Academia, Prague (1983).

5. On the joint distribution of the Brownian local and occupation times. *Proc. of the fifth IFIP Working Conference on Stochastic Differential Systems,* eds. H.J. Engelbert, W. Schmidt. *LN in Control and Information Sciences,* Vol. 96, p. 213 - 217. Springer Verlag (1987).

6. On functionals of branching Brownian motions. (Joint work with A.N. Borodin). *Frontiers in Pure and Applied Probability,* Proceedings of the Third Finnish-Sovjet Symposium on Probability Theory and Mathematical Statistics, eds. H. Niemi, G. Högnäs, A.N. Shiryayev, A.V. Melnikov, Vol. 1, p. 7-21. VSP BV/ TVP Science Publishers, Moscow (1993).

7. A note on first passages in branching Brownian motions. (Joint work with I. Kaj). *Frontiers in Pure and Applied Probability,* Proceedings of the Third Finnish-Sovjet Symposium on Probability Theory and Mathematical Statistics, eds. H. Niemi, G. Högnäs, A.N. Shiryayev, A.V. Melnikov, Vol. 1, p. 95-102. VSP BV/ TVP Science Publishers, Moscow (1993).

8. A pointwise limit theorem for the transition density of a linear diffusion. *Frontiers in Pure and Applied Probability,* Proceedings of the Fourth Finnish-Sovjet Symposium on Probability Theory and Mathematical Statistics, eds. H. Niemi, E. Valkeila, A.N. Shiryayev, A.V. Melnikov, Vol. 8, p. 171-176. VSP BV/ TVP Science Publishers, Moscow (1996).

12. On Dufresne's perpetuity, translated and reflected. (Joint work with Marc Yor). Proceedings of the Ritsumeikan International Symposium 5-9 March 2003: Stochastic Processes and Applications to Mathematical Finance. Ed. Akahori, Ogawa, and Watanabe, p. 337-354. World Scientific 2004. Prepublication PMA-858. (http://www.proba.jussieu.fr/publi.html).

14. Perpetual integral functionals of diffusions and their numerical computations. (Joint work with Olli Wallin). *Proceedings of the Abel Symposium 2005 - Stochastic Analysis and Applications - Symposium in Honor of Kiyoshi Itô*, eds. F.E. Benth, G. Di Nunno, T. Lindström, B. OEksendal, T. Zhang. p. 569-594. Springer Verlag (2007).

B. Non-refereed scientific articles

B1. Non-refereed journal articles

1. The 3-dimensional Bessel process and Brownian motion. *Acta Academiae Aboensis, Ser. B*, Vol. 40, No. 7, (1980). 8 p.
2. One-dimensional diffusions and their duals. *Acta Academiae Aboensis, Ser. B*, Vol. 41, No. 5, (1981). 16 p.
3. ϵ-optimal stopping of one-dimensional transient diffusions. *Acta Academiae Aboensis, Ser. B*, Vol. 44, No. 2, (1984). 9 p.
4. Discussion paper in IPM 35: Recent advances in probability. *Bulletin of ISI: Proceedings of the 52nd Session* Tome LVIII, Book 3, p. 131-132. International Statistical Institute, Helsinki (1999).
5. On local times of a diffusion. Abstracts of the 14th conference on stochastic processes and their applications. *Stochastic Processes and Their Applications,* Vol. 19, p. 24 (1985).
6. Editorial. (Joint work with J. Alho). *Scandinavian Journal of Statistics*, Vol. 37(1), p. 1 (2010).
7. Optimal stopping with applications, an editorial introduction. (Joint work with S. Jacka and G. Peskir) *Stochastics: An International Journal of Probability and Stochastic Processes* (to appear).

C. Scientific books

C1. Book

1. Handbook of Brownian Motion – Facts and Formulae. (Joint work with A.N. Borodin). Birkhauser Verlag, Basel-Boston-Berlin (1996), p. 462 .
2. Spravocnik po brounovskomy dvizeniy - fakty i formuly. (Joint work with A.N. Borodin). Lan publishers, St. Petersburg, (2000). (Extended Russian translation of Handbook of Brownian Motion – Facts and Formulae. Birkhauser Verlag, Basel-Boston-Berlin (1996)).
3. Handbook of Brownian Motion – Facts and Formulae, 2nd edition. (Joint work with A.N. Borodin). Birkhauser Verlag, Basel-Boston-Berlin (2002), p. 672.

C2. Edited special issue of a journal

1. Stochastics An International Journal of Probability and Stochastic Processes. Special Issue: Optimal Stopping and Applications. (Joint work with S. Jacka and G. Peskir). Taylor & Francis Group (2011) (to appear).

D. Publications intended for professional communities

D1. Article in a trade journal

1. On the microscopical structure of the Wiener process. *The mathematical days in Turku 1986.* Ed. R. Ernvall p. 51-53. Turun Yliopiston offsetpaino (1986) (in Finnish).
2. The Black-Scholes formula - the basic element in financial mathematics. (Joint work with E. Valkeila.) *Arkimedes*, 3/1999 (in Finnish).

D4. Research report

1. Martin-boundaries for some space-time Markov processes. Preprint No. 31, 1978/ 79 *Aarhus Universitet, Matematisk Institut.* 22 p.
2. A class of non-time-homogeneous diffusions with the $2M - X$-property. *Rapporter från Åbo Akademi. Informationsbehandling & Matematik,* Ser. A, No. 15 (1981). 15 p.
3. A Poisson process with predictable jump times. *Rapporter från Åbo Akademi. Informationsbehandling & Matematik,* Ser. A, No. 28 (1983). 3 p.
4. On excessive measures and functions of symmetric Markov processes - especially linear diffusions. *Rapporter från Åbo Akademi. Informationsbehandling & Matematik,* Ser. A, No. 41 (1985). 29 p.
5. On the distribution of the first hitting time of a Brownian motion to a parabola. (Joint work with P. Groeneboom.) Preprint (1987). 8 p.
6. On the distribution of first passages in branching Brownian motions. Preprint No. 140 (1992), *Institute for Applied Mathematics, University of Turku.* 12 p.
7. Decomposing a diffusion at the minimum of $\mu t - \ell_t$. (Joint work with Paul McGill and John Walsh). Preprint. 10 p (1996).
8. Linear diffusions – a survey. (Joint work with Marina Sirviö (née Kozlova)). Under preparation for *Surveys in Probability*
9. Appell polynomilas and Lévy processes. (Joint work with Bao Q. Ta). Under preparation.
10. Riesz representation and optimal stopping with two case studies (Joint work with Sören Christensen). Submitted. Preprint in Arxiv 1309.2469 (2013)
11. Differentiability of excessive functions of one-dimensional diffusions and the principle of smooth fit. (Joint work with Bao Ta). Submitted. Preprint in Arxiv 1310.1901 (2013)
12. Optimal stopping of diffusions – a synthesis. (Joint work with Luis Alvarez). Under preparation.

D4. Textbook

1. Numerical and discrete mathematics. (Joint work with G. Högnäs and T. Koski). Sigma vid Åbo Akademi. Åbo Akademis kopieringscentral (1986) (in Swedish).

G. Theses

G5. Doctoral dissertation (article)

1. Studies in one-dimensional diffusions. Åbo Akademis kopieringscentral (1981).