

PUBLICATIONS OF NARN-RUEIH SHIEH

A. journal papers B. conference papers C. preprints/technical reports

SCI : Science Citation Index

(2008A) Multifractality of products of geometric Ornstein-Uhlenbeck type processes. To appear in *Advances in Applied Probability*. Joint work with V. Anh and N.N. Leonenko. SCI

(2008B) Multifractal scenarios for products of geometric Ornstein-Uhlenbeck type processes. To appear in *Proceedings of Statistical Dependence Conference, Paris 2008*, to be published by Springer. Joint work with V. Anh and N.N. Leonenko.

(2008C) Fractal Geometry of Lévy-based Spatial-Temporal Random Fields. Submitted.

(2008A) Multifractal moment-scalings in geometric birth and death processes. To appear in *Bernoulli, Official Journal of the Bernoulli Society*. Joint work with V. Anh and N.N. Leonenko. SCI

(2008A) Multifractal products of stationary diffusions. To appear in *Journal of Stochastic Analysis and Applications*. Joint work with V. Anh and N.N. Leonenko. SCI

(2008B) Multifractal Analysis of Branching Measure on a Galton-Watson Tree. In *Proceedings of ICCM 2004*, pp 655-662, ed. K.S. Lau, Z.P. Xin, and S.T. Yau. AMS/IP Studies in Advanced Math **42**, 2008. Joint work with P. Mörters.

(2008C) Random p-adic Riesz products: continuity, singularity, and dimension. Submitted. Joint work with X.Y. Zhang.

(2008C) On the exponentials of fractional Ornstein-Uhlenbeck Processes. Submitted. Joint work with M. Matsui.

(2008A) Hausdorff dimension of the contours of symmetric additive Levy processes. *Probability Theory and Related Fields* **140**, 129-167. Joint work with D. Khoshnevisan and Y.M. Xiao. SCI

(2008A) The exact packing measure of Brownian double points. To appear in *Probability Theory and Related Fields*. Online at DOI 10.1007/s00440-007-0122-x . Joint work with P. Mörters. SCI

(2008B) Dilation-stable-like processes on fractals. In *Proceedings of German-Japan Symposium at RIMS Kyoto University*, pp 213-219, ed. M. Fukushima and I. Shigekawa.

RIMS Research Notes Series Special Volume (RIMS Kôkyûroku Bessatsu B6), 2008.

(2008B) Operator semi-selfsimilar processes induced by multi-dimensional random walks in multi-dimensional random scenery. In *Infinite Divisible Processes and Related Topics (12)*. ISM (Tokyo, Japan) Cooperative Research Report 213. Joint work with T. Saigo and H. Takahashi.

(2007B) Dimensions for images and contours of additive Lévy processes. In *Infinite Divisible Processes and Related Topics (11)*. ISM (Tokyo, Japan) Cooperative Research Report 195. Joint work with Y.M. Xiao.

(2006A) Images of Gaussian random fields: Salem sets and interior points. *Studia Mathematica* **176**, 37-60. Joint work with Y.M. Xiao. SCI

(2006A) Critical behavior for an oriented percolation with long-range interactions in dimension $d > 2$. *Taiwanese Journal of Mathematics* **10**, 1345-1378. Joint work with L.C. Chen. SCI

(2005C) Collisions of stable sheets. In *NCTS/Taipei Technical Report Series 2005-005*. Joint work with Z.Y. Lin and R.M. Zhang.

(2005A) Dimensional properties of random fractals with overlaps. *Taiwanese Journal of Mathematics* **9**, 313-330. Joint work with J.H. Yu. SCI

(2004A) On the multifractal spectrum of branching measure on a Galton-Watson tree. *Journal of Applied Probability* **41**, 1223-1229. Joint work with P. Mörters. SCI

(2004A) Dimensions of supercritical branching processes in varying environments. *Statistics and Probability Letters* **70**, 299-308. Joint work with J.H. Yu. SCI

(2003C) Galton-Watson trees and iterated function systems. Preprint. Joint work with J.H. Yu.

(2003C) Multifractal spectrum for for a supercritical age-dependent branching process. Unpublished manuscript.

(2002A) Thin and thick points for branching measure on a Galton-Watson tree. *Statistics and Probability Letters* **58**, 13-22. Joint work with P. Mörters. SCI

(2002A) Multifractal spectra of branching measure on a Galton-Watson tree. *Journal of Applied Probability* **39**, 100-111. Joint work with S.J. Taylor. SCI

(2000A) Multifractal spectra of certain random Gibbs measures. *Statistics and Probability Letters*, **47**, 25-31. Joint work with A.H. Fan. SCI

- (2000A) Some fractal properties of Brownian paths. *Taiwanese Journal of Mathematics* **4**, 45-53. SCI
- (1999A) Small scale limit theorems for the intersection local times of Brownian motions. *Electronic Journal of Probability* **4**, Paper No. 9 1-23. Joint work with P. Mörters. SCI
- (1999A) Uniform law for the branching measures on a Galton-Watson tree. *Asian Journal of Mathematics* **3**, 381-386. Joint work with Q.S. Liu.
- (1999, Book) Trends in Probability and Related Analysis, Proceedings of SAP'98. World Scientific, 1999. Jointly with Norio Kono.
- (1999B) Method of calculating the dimension spectrum of a Borel measure when the multifractal formalism fails. In *Trends in Probability and Related Analysis, Proceedings of SAP'98*, pp 265-272, ed. N. Kono and N.-R. Shieh. World Scientific, 1999.
- (1998A) Logarithmic multifractal spectrum of stable occupation measure. *Stochastic Processes and their Applications* **75**, 249-261. Joint work with S. J. Taylor. SCI
- (1998A) Multiple points of dilation-stable Levy processes. *Annals of Probability* **26**, 1341-1355. SCI
- (1997, Book) Trends in Probability and Related Analysis, Proceedings of SAP'96. World Scientific, 1997. Jointly with Norio Kono.
- (1997B) A growth condition for Brownian intersection points. In: *Trends in Probability and Related Analysis, Proceedings of SAP'96*, pp 265-272, ed. N. Kono and N.-R. Shieh. World Scientific, 1997.
- (1996A) Limit theorems for local times of fractional Brownian motions and some other self-similar processes. *J. Math. Kyoto Univ.* **36** (1996) 641-652. SCI
- (1996B) Sample functions of Levy-Chentsov reandom fields. In: *Probab. Theory and Math. Statistics, Proceedings of 7th Japan-Russia Symposium (1996)* 450-459 (ed. S. Watanabe et al) World Scientific.
- (1995A) Collisions of Markov processes. *Tokyo J. Math.* **18** (1995) 111-121. SCI
- (1995A) Some self-similar processes related local times. *Stat. and Probab. Letters* **24** (1995) 213-218. SCI
- (1993A) Multiple points of fractional stable processes. *J. Math. Kyoto Univ.* **33** (1993) 731-741. SCI

- (1993A) Local times and related sample path properties of certain self-similar processes. *J. Math. Kyoto Univ.* 33 (1993) 51-64. Joint work with N. Kono. SCI
- (1992B) Local nondeterminism and self-intersection of certain self-similar processes. In: *Probab. Theory and Math. Statistics, Proceedings of 6th Japan-Russia Symposium* (1992) 317-323 (ed. A. N. Shiryaev et al) World Scientific.
- (1992A) Multiple points of sample paths of Markiv processes. *Ann. Probab.* 20 (1992) 553-562. SCI
- (1991B) A W.N.C. view point of intersection local times. In: *Proceedings of Gaussian Random Fields Conference* (1991) 346-353 (ed. K. Ito et al) World Scientific.
- (1991A) White noise analysis and Tanake formula for intersections of planar Brownian motions. *Nagoya Math. J.* 122 (1991) 1-17. SCI
- (1990A) Conditional local nondeterminism and Hausdorff measure of level sets. *Canadian Math. Bull.* 34 (1990) 123-127. SCI
- (1990A) Self-intersections of Markov processes. *Bull. London Math. Soc.* 22 (1990) 602-606. SCI
- (1990B) Positivity of Donsker delta functions. In: *Proceedings of Conference of White Noise Analysis* (1990) 374-382 (ed. T. Hida et al) World Scientific. Joint work with Y. Yokoi.
- (1989A) Collisions of Markov processes. *Proc. Amer. Math. Soc.* 106 (1989) 503-506. SCI
- (1989A) A note on the local times of stochastic processes. *Bull. Inst. Math. Academia Sinica Taipei* 17 (1989) 9-16.
- (1989A) Multiple points of Levy processes. *Ann. Probability* 17 (1989) 503-515. Joint work with J.F. Legall and J. Rosen. SCI
- (1987A) A LIL for occupation times of stable processes. *Proc. Amer. Math. Soc.* 100 (1987) 154-158. SCI
- (1987A) A generalized Ito's formula for mulidimensional Brownian motions and its applications. *Chinese J. Math.* 15 (1987) 163-174. Joint with H.H. Kuo.
- (1986A) The moments of the local time of a stochastic process with applications to Gaussian local times. *Bull. Inst. Math. Academia Sinica Taipei* 14 (1986) 139-147.
- (1985A) The local growth of a random fields. *Z. Wahrsch. Verw. Geb.* 69 (1985)

629-637. SCI

(1984A) Multiple points of a random fields. Proc. Amer. Math. Soc. 92 (1984)

279-282. SCI

(1982A) Strong differentiation and martingales in product spaces. Math. Rep. Toyama Univ. 5 (1982), 29–36.

(1982A) Results on square functions and quadratic variations of multiparameter martingales. Math. Rep. Toyama Univ. 5 (1982), 85–94.

(1977A) On a sufficient condition for the convergence of multiple Fourier series. Bull. Inst. Math. Acad. Sinica 5 (1977), no. 2, 391–395. Joint work with JD Chen.