

PUBLICATIONS OF NARN-RUEIH SHIEH (1992–present)

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

SCI : Science Citation Index

(2012A) On time-fractional relativistic diffusion equations. *J. Pseudo-Differ. Oper. Appl.*, DOI 10.1007/s11868-012-0049-6.

(2012A) On the Exponential Process associated with a CARMA-type Process. *Stochastics*, DOI:10.1080/17442508.2012.654791. Joint work with M. Matsui. SCI

(2012C) Multi-scaling Limits for Relativistic Diffusion Equations with Random Initial Data. Working paper. Joint work with G.-R. Liu. Submitted.

(2011A) Multiparameter multifractional Brownian motion: local nondeterminism and joint continuity of the local times. *Ann. Inst. Henri Poincaré – Prob. et Stat.* **47**, 1029-1054. Joint work with A. Ayache and Y.M. Xiao. SCI

(2011A) Homogenization of fractional kinetic equations with random initial data. *Electronic Journal of Probability.* **16**, Paper no. 32, 962-980. Joint work with G.-R. Liu. SCI

(2011B) Sample Paths of Fractional Lévy Processes. In *Infinite Divisible Processes and Related Topics (15)*. ISM (Tokyo, Japan) Cooperative Research Report No. 262. Joint work with M. Maejima.

(2010C) Ornstein-Uhlenbeck Transform of Fractional Brownian Sheets. Working project. Joint work with A. Ayache.

(2010C) Packing Dimensions of the Random Covering Sets. Working paper. Joint work with B. Li and Y.M. Xiao. Submitted.

(2010A) Hausdorff and Packing dimension results for the images of random fields. *Bernoulli* **16**, 926-952. Joint work with Y.M. Xiao. SCI

(2010B) Multifractal scenarios for products of geometric Ornstein-Uhlenbeck type processes. In *Dependence in Probability and Statistics*, pp 103-119, ed. P. Doukhan, G. Lang, D. Surgailis, and G. Teyssiere. Springer Lecture Notes in Statistics **200**, 2010. Joint work with V. Anh and N.N. Leonenko.

(2010A) Simulation of Multifractal Products of Ornstein-Uhlenbeck type processes. *Nonlinearity* **23**, 823-843. Joint work with V. Anh, N.N. Leonenko, and E. Taufer. SCI

(2010A) Scaling limits of time-fractional diffusion-wave systems with random initial data. *Stochastics and Dynamics* **10**, 1-35. Joint work with G.-R. Liu. SCI

(2010A) Scaling limits of some P.D.E. systems with random initial conditions. *Stochastic Analysis and Applications* **28**, 505-522. Joint work with G.-R. Liu. SCI

(2009A) Fractal Geometry of Lévy-based spatial-temporal random fields. *Fractals* **17**, 505-511. SCI

(2009A) Random p-adic Riesz products: continuity, singularity, and dimension. *Proceedings of American Math Society* **137**, 3477-3486. Joint work with X.Y. Zhang. SCI

(2009A) Multifractal moment-scalings in geometric birth and death processes. *Bernoulli* **15**, 508-531. Joint work with V. Anh and N.N. Leonenko. SCI

(2009A) Multifractal products of stationary diffusions. *Stochastic Analysis and Applications* **27**, 475-499. Joint work with V. Anh and N.N. Leonenko. SCI

(2009A) On the exponentials of fractional Ornstein-Uhlenbeck Processes. *Electronic Journal of Probability* **14**, Paper no. 23, 594-611. Joint work with M. Matsui. SCI

- (2009A) The exact packing measure of Brownian double points. *Probability Theory and Related Fields* **143**, 113-136. Joint work with P. Mörters. SCI
- (2008A) Multifractality of products of geometric Ornstein-Uhlenbeck type processes. *Advances in Applied Probability* **40**, 1129-1156. Joint work with V. Anh and N.N. Leonenko. SCI
- (2008A) Log-Euler's gamma multifractal scenario for products of Ornstein-Uhlenbeck type processes. *Mathematical Communications* **13**, 133-448. Joint work with V. Anh and N.N. Leonenko.
- (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.
- (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
- (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
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- (2003C) Multifractal spectrum for for a supercritical age-dependent branching process. Unpublished manuscript.
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- (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.
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- (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 etal) World Scientific.
- (1992A) Multiple points of sample paths of Markov processes. *Ann. Probab.* 20 (1992) 553-562. SCI