

A 50-Year Journey Through Probability

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A research journey across five decades



Unifying perspective

Limit theorems, dependence, fractional dynamics, spectral methods, statistical inference, and applications.

Research topics

- ▶ Random fields and limit theory
- ▶ Long-range dependence
- ▶ Fractional and non-local models
- ▶ Spectral and higher-order methods
- ▶ Pearson diffusions and CTRW
- ▶ Multifractality and intermittency
- ▶ Finance, insurance, and regression
- ▶ Entropy and nearest-neighbour graphs

Collaborators

- ▶ O.E. Barndorff-Nielsen
- ▶ M.Taqqu
- ▶ N.-R. Shieh
- ▶ F.Avram
- ▶ J.Vaz
- ▶ A.V.Ivanov
- ▶ G.Terdik
- ▶ A.Sikorskii
- ▶ E.Scalas
- ▶ M. D'Ovidio
- ▶ I.Papic
- ▶ L.Pronzato
- ▶ E. Taufer
- ▶ L.Maini
- ▶ L. Beghin
- ▶ M.Meershaert
- ▶ W. A Woyczynski
- ▶ M.D. Ruiz-Medina
- ▶ I.Nourdin
- ▶ L.M.Sakhno
- ▶ A.Olenko
- ▶ O.Kulik
- ▶ E.Pirozii
- ▶ N.Suvak
- ▶ A.Pepelyshev
- ▶ C.Ma
- ▶ F.Pistolato
- ▶ C.Heyde
- ▶ E.Merzbach
- ▶ V.Anh
- ▶ I.Podlubny
- ▶ T.Simon
- ▶ M.I.Yadrenko
- ▶ A.Malyarenko
- ▶ G. Ascione
- ▶ C.Macci
- ▶ D.Grahovac
- ▶ A.Kumar
- ▶ D.Denisov
- ▶ among the others

Weak dependence and four moments

Selected publications and milestones

Weak dependence and four moments 1

- ▶ Leonenko, M. M. The central limit theorem for homogeneous random fields and the asymptotic normality of estimators of the regression coefficients (Ukrainian) *Dopovidi Akad. Nauk Ukraïn. RSR Ser. A* (**1974**), 699–702
- ▶ Leonenko, N. N. Estimation of the rate of convergence in the central limit theorem for m -dependent random fields, *Mathematical Notes*, 17 (**1975**), 129–132
- ▶ Leonenko, N. N.; Jadrenko, M. I. An invariance principle for homogeneous and isotropic random fields, *Theory Probability and its Applications*, 24 (**1979**), no. 1, 175–181

Weak dependence and four moments 2

- ▶ Avram, F., Leonenko, N.N, and Sakhno, L., (2010), On Szego type limit theorem, the Holder –Young-Brascamp-Lieb inequality, and asymptotic theory of integrals and quadratic forms of stationary fields, ESAIM: Probability and Statistics, vol 14, 2010, 210-255
- ▶ Ivanov, A.V., Leonenko, N.N, Ruiz-Medina, M.D. and Savich, I.N. (2013) Limit theorems for weighted non-linear transformations of Gaussian processes with singular spectra, Annals of Probability, vol. 41, No 2, 1088-1114
- ▶ Avram, F., Leonenko, N.N and Sakhno, L. (2015) Limit theorems for additive functionals of stationary fields, under integrability assumptions on the higher order spectral densities, Stochastic Processes and their Applications, Vol 125, N4, 1629-1652
- ▶ Bourguin, S.; Campese, S., Leonenko, N. and Taqqu, M. S.(2019); Four moments theorems on Markov chaos, Annals of Probability , vol. 47 , no. 3, 1417–1446

Covariance estimation

Selected publications and milestones

Covariance estimation

- ▶ Ivanov, A. V.; Leonenko, N. N. On the convergence of distributions of functionals of an estimate of a covariance function, Lithuanian Mathematical Journal, 18 (1978), no. 4, 35–44
- ▶ Ivanov, A. V.; Leonenko, N. N. On the invariance principle for estimating the correlation function of a homogeneous isotropic random field, Ukrainian Mathematical Journal, 33 (1981), no. 3, 313–323
- ▶ Kepich, A. Yu.; Leonenko, N. N. On the limit distribution of correlogram of random field with long-range dependence and unknown mean, Random Operators and Stochastic Equations, 2 (1994), no. 3, 203–210
- ▶ Leonenko, N. N.; Sakhno, L. M. On the Kaplan-Meier estimator of long-range dependent sequences, Statistical Inference Stochastic Processes. 4 (2001), no. 1, 17–40

Long-range dependence

Selected publications and milestones

Long-range dependence 1

- ▶ Leonenko, N. N. Convergence of distributions of functions of nonlinear transformations of Gaussian random fields, Theory of Probability and Mathematical Statistics, No. 29 (1983), 64–72
- ▶ Leonenko, N.N. and Taufer, E., (2006), Weak convergence of stationary long memory processes to Rosenblatt-type distributions, J. Statist. Plann. Inference, 136, 1220-1236
- ▶ Leonenko, N., Ruiz-Medina, M.D. and M.S.Taqqu (2017) Non-central limit theorems for random fields subordinated to gamma-correlated random fields, Bernoulli, 2017, Vol. 23, No. 4B, 3469-3507
- ▶ Leonenko, N., Ruiz-Medina, M.D. and M.S.Taqqu (2017) Rosenblatt distribution subordinated to Gaussian random fields with long-range dependence, Stochastic Analysis and Applications, 35, N1, 144-177
- ▶ Anh, V.V., Leonenko, N.N., Olenko, A and Vaskovich, V (2019) On rate of convergence in non-central limit theorems, Bernoulli, 25, N 4A, 2920-2948
- ▶ Leonenko, N. and Pepelyshev, A. (2025) Numerical computation of the Rosenblatt distribution and applications, Stat, no. 4, Paper No. e70107

Sojourn measures for random fields

Selected publications and milestones

Sojourn measures for random fields

- ▶ Leonenko, N. N. Measures of exceeding of a level by a Gaussian isotropic random fields, Theory of Probability and Mathematical Statistics No. 31 (**1984**)
- ▶ Leonenko, N. N. Limit distributions of the characteristics of exceeding of a level by a Gaussian random fields, Mathematical Notes, 41 (**1987**), no. 4, 608–618
- ▶ Leonenko N. and Olenko, A. (**2014**) Sojourn measures for Student and Fisher-Snedecor random fields, Bernoulli, 20 (3), 1454-1483

Tauberian and Abelian theory

Selected publications and milestones

Tauberian and Abelian theory

- ▶ Leonenko, N. N.; Olenko, A. Ya. Tauberian theorems for correlation functions and limit theorems for spherical averages of random fields, *Random Operators and Stochastic Equations*, 1 (**1993**), no. 1, 57–67
- ▶ Leonenko, N. N.; Olenko, A. Ya. Tauberian and Abelian theorems for the correlation function of a homogeneous isotropic random field, *Ukrainian Mathematical Journal*, 43 (**1992**), no. 12, 1539–1548
- ▶ Leonenko, N.N. and Olenko, A. (**2013**) Tauberian and Abelian theorems for LRD random fields, *Methodology and Computing in Applied Probability*, vol 15, N4, 715-742
- ▶ Kovtun, A., Leonenko, N. and Pepelyshev, A. (**2026**) Singular properties of high-order spectral densities of supOU processes, *Communications in Nonlinear Science and Numerical Simulation* 153 (**2026**), Paper No. 109459, 17pp

Limit theorems for random PDE

Selected publications and milestones

Limit theorems for random PDE

- ▶ Leonenko, N.; Orsingher, E. Limit theorems for solutions of the Burgers equation with Gaussian and non-Gaussian initial conditions, *Theory Probability and its Applications* 40 (1996), no. 2, 294–308
- ▶ Leonenko, N. N.; Woyczynski, W. A. Scaling limits of solutions of the heat equation for singular non-Gaussian data, *Journal of Statistical Physics*, 91 (1998), no. 1-2, 423–438
- ▶ Leonenko, N. N.; Woyczynski, W. A. Exact parabolic asymptotic for singular n -D Burgers' random fields: Gaussian approximation, *Stochastic Processes and their Applications*, 76 (1998), no. 2, 141–165
- ▶ Anh, V. V.; Leonenko, N. N. Non-Gaussian scenarios for the heat equation with singular initial conditions, *Stochastic Processes and their Applications*, 84 (1999), no. 1, 91–114

Regression and experimental design

Selected publications and milestones

Regression and experimental design 1

- ▶ Ivanov, A. V.; Leonenko, N. N. Asymptotic behaviour of M-estimators in continuous-time non-linear regression with long-range dependence, Random Operators and Stochastic Equations,10 (2002), no. 3, 201–222
- ▶ Ivanov, A.V., Leonenko, N.N., (2008), Semiparametric analysis of long-range dependence in nonlinear regression, J. Statist. Plann. Inference, 138, 1733-1753
- ▶ Dette, H., Leonenko, N.N., Pepelishev, A. and Zhigljavsky, A. (2009) Asymptotic optimal designs under long-range dependence error structure, Bernoulli, 15, N4, 1036-1056, Corrections Bernoulli 18 (2012), no. 2, 746
- ▶ Ivanov, A.V., Leonenko, N.N. and I.V.Orlovskiy (2020) On the Whittle estimator for linear random noise spectral density parameter in continuous-time nonlinear regression models, Statistical Inference for Stochastic Processes, 23, 129-169

Higher-order inference

Selected publications and milestones

Higher-order inference 1

- ▶ Leonenko, N. N.; Sikorskii, A. Yu.; Terdik, G. On spectral and bispectral estimator of the parameter of non-Gaussian stochastic processes, *Random Operators and Stochastic Equations*6 (**1998**), no. 2, 159–182, Errata: 7 (**1999**), no. 1, 107
- ▶ Anh, V.V., Leonenko, N.N., Moldavskaya, E.M., Sakhno, L.M., (**2003**), Estimation of spectral densities with multiplicative parameter, *Acta Appl. Math.*, 79, N 1-2, 115–128
- ▶ Anh, V.V., Leonenko, N.N., Sakhno, L. M., (**2004**), Quasi-likelihood-based higher-order spectral estimation of random fields with possible long-range dependence. *Stochastic methods and their applications. Journal of Applied Probability*, 41A, 35–53
- ▶ Anh, V.V., Leonenko, N.N., Sakhno, L.M., (**2007**), Statistical inference using higher-order information, *Journal of Multivariate Analysis*, 98, N4, 706–742

Pearson diffusions

Selected publications and milestones

- ▶ Kulik, A.M. and Leonenko, N.N. (2013) Ergodicity and mixing bounds for the Fisher-Snedecor diffusion, Bernoulli, Vol. 19, No. 5B, 2294-2329
- ▶ Avram, F., Leonenko, N.N and Suvak, N., (2013), Spectral representation of transition density of Fisher-Snedecor diffusion, Stochastics 85 (2013), no. 2, 346–369
- ▶ Avram, F., Leonenko, N.N and Suvak, N. (2013), On spectral analysis of heavy-tailed Kolmogorov-Pearson diffusion, Markov Processes and Related Fields, Volume 19, N 2 , 249-298
- ▶ Kulik, A.M., Leonenko, N.N., Papic, I. and Suvak, N. (2020) Non-stationary Fisher-Snedecor diffusion, Methodology and Computing in Applied Probability, 22, 1023-1061

Fractional Pearson models

Selected publications and milestones

Fractional Pearson models 1

- ▶ Leonenko, N.N., Meerschaert, M.M, and Sikorskii, A. (2013) Fractional Pearson diffusion, Journal of Mathematical Analysis and Applications, vol. 403, 532-546
- ▶ Leonenko, N.N., Meerschaert, M.M and Sikorskii, A. (2013) Correlation Structure of Fractional Pearson diffusion, Computers and Mathematics with Applications, 66, 737-745
- ▶ Leonenko, N.N., Papic, I., Sikorskii, A. and Suvak, N. (2017) Heavy-tailed fractional Pearson diffusions, Stochastic Processes and their Applications, 127, N11, 3512-3535
- ▶ Leonenko, N.N., Papic, I., Sikorskii, A. and Suvak, N. (2018) Correlated continuous time random walks and fractional Pearson diffusions, Bernoulli, Vol. 24, No. 4B, 3603-3627
- ▶ Ascione, G., Leonenko, N. and Pirozzi E.(2021), Non-local Pearson diffusions, Journal of Statistical Physics, 183, Article number 48, 42pp
- ▶ Leonenko, N. N.; Papić, I.; Sikorskii, A.; Šuvak, N.(2020) Approximation of heavy-tailed fractional Pearson diffusions in Skorokhod topology, Journal of Mathematical Analysis and Applications 486 , no. 2, 123934
- ▶ Beghin, L., Leonenko, N., Papic, I. and Vaz, J. (2026) Stretched non-local Pearson diffusions, Stochastic Processes and Applications, 195 , Paper No. 104854,24pp

Fractional processes and fields

Selected publications and milestones

Fractional processes and fields 1

- ▶ Kelbert, M.Ya., Leonenko, N.N., Ruiz-Medina, M. D., (2005), Fractional random fields associated with stochastic fractional heat equations. *Advances in Applied Probability.*, 37, N 1, 108–130
- ▶ Leonenko, N.N, Ruiz-Medina, M.D. and Taqqu, M.S. (2011) Fractional elliptic, hyperbolic and parabolic random fields, *Electronic Journal of Probability*, vol 16, Paper n 40, pages 1134-1172
- ▶ Leonenko, N.N., Meerschaert, M.M., Schilling, R.L. and Sikorskii, A. (2014) Correlation Structure of Time-Changed Lévy Processes, *Communications in Applied and Industrial Mathematics*, Vol. 6 , No. 1, p. e-483 (22 pp.)
- ▶ Aletti, G., Leonenko, N.N. and Merzbach, E. (2018) Fractional Poisson fields and martingales, *Journal of Statistical Physics*, 170, N4, 700-730

Fractional processes and fields 2

- ▶ Leonenko, N.N., Papic, I., Sikorskii, A. and Suvak, N. (2018) Correlated continuous time random walks and fractional Pearson diffusions, Bernoulli, Vol. 24, No. 4B, 3603-3627
- ▶ Anh, V.V., Leonenko, N.N. and Sikorskii, A. (2017) Stochastic representation of fractional Bessel-Riesz motion, Chaos, Solitons, Fractals, 102, 135-139
- ▶ Ascione, G., Leonenko, N. and Pirozzi E. (2020) Fractional Erlang queues, Stochastic Processes and Applications, 130, 3249-3276
- ▶ Leonenko, N., Scalas, E. and Trinh, M. (2019) Limit theorems for the fractional Non-homogeneous Poisson process, Journal of Applied Probability, 59, N1, 246-264

Fractional processes and fields 3

- ▶ Leonenko, N. and Podlubny, I. (2022) Monte Carlo method for fractional-order differentiation, Fractional Calculus and Applied Analysis, 25, N2, 246-361
- ▶ Ascione, G., Leonenko, N. and Pirozzi E. (2022) Non-local solvable birth-death processes, Journal of Theoretical Probability, 35, N2, 1284-1323
- ▶ Singla, K., Leonenko, N. (2025) On solutions of fractional nonlinear Fokker-Planck equation, Fractional Calculus and Applied Analysis, 28, 1094-1105
- ▶ Gupta, N., Kumar, A., Leonenko, N. and Vaz, J. (2024) Generalized fractional derivatives generated by Dickman subordinator and related stochastic processes, Fractional Calculus and Applied Analysis 27 , no.4, 1527–1563
- ▶ Beghin, L., Leonenko, N. and Vaz, J. (2026) Relaxation equations with stretched non-local operators: renewals and time-changed processes, Journal of Theoretical Probability, 39, N2, Paper No. 22, 38 pp.

Spectral theory

Selected publications and milestones

- ▶ Anh, V.V., Leonenko, N.N., (2003), Harmonic analysis of random fractional diffusion-wave equations, Appl. Math. Comput. 141, N 1, 77–85
- ▶ Broadbridge, Ph., Kolesnik, A.D., Leonenko, N. and Olenko, A. (2019) Random spherical hyperbolic diffusion, Journal of Statistical Physics, 177, N5, 889-916
- ▶ Leonenko, N. and Malyarenko, A. (2017) Matern class tensor-valued random fields and beyond, Journal of Statistical Physics, 168, N6, 1276-1301
- ▶ Leonenko, N., Malyarenko, A. and Olenko, A. (2022) On spectral theory of random fields in the ball, Theory of Probability and Mathematical Statistics, No. 107 (2022), 61–76

Spherical fields

Selected publications and milestones

Spherical fields 1

- ▶ D'Ovidio, M, Leonenko, N and Orsingher, E. (2016) Fractional spherical random fields, *Statistic and Probability Letters*, 116, 146-156
- ▶ Leonenko, N.N., Taqqu, M.S. and Terdik, Gy (2018) Estimation of the covariance function of Gaussian isotropic random fields, related Rosenblatt-type distributions and the cosmic variance problem, *Electronic Journal of Statistics*, Vol. 12, 3114–3146
- ▶ Leonenko, N. N.; Ruiz-Medina, M. D. (2018) Increasing domain asymptotic for the first Minkowski functional of spherical random fields, *Theory Probability and Mathematical Statistics*, 97, 127–149
- ▶ Leonenko, N., Olenko, A. and Vaz, J. (2024) On fractional spherically restricted hyperbolic diffusion random field, *Communications in Nonlinear Science and Numerical Simulation*, 131, 107866

Finance and insurance

Selected publications and milestones

- ▶ Heyde, C.C. and Leonenko, N.N., (2005) Student Processes, Advances of Applied Probability, 37, N2, 342-365
- ▶ Leonenko, N.N, Petherick, S. and Sikorskii, A (2012) Fractal activity time models for risky asset with dependence and generalized hyperbolic distributions, Stochastic Analysis and Applications, 30, N3, 476-492 (A)
- ▶ Leonenko N.N, Petherick, S. and Sikorskii A. (2012) Normal Inverse Gaussian model for risky asset with dependence, Statistic and Probability Letters, 82, 109-115
- ▶ Keress, A.D.J., Leonenko, N.N. and Sikorskii, A. (2014) Risky asset models with tempered stable fractal activity time, Stochastic Analysis and Applications, 32, 642-663

- ▶ Leonenko, N.N. and Taufer, E (2013) Disaggregation of spatial autoregressive processes, Spatial Statistics, vol. 3, 1-20
- ▶ Hainaut, D. and Leonenko, N. (2021) Option pricing in illiquid markets: a fractional jump-diffusion approach. Journal of Computational and Applied Mathematics, 381, 112995, 19 pp
- ▶ Kumar, A., Leonenko, N. and Pichler, A. (2020) Fractional risk process in insurance, Mathematics and Financial Economics, 14, N1, 43-65
- ▶ Leonenko, N. and Pepelyshev, A., Pirozzi, E., Pichler, A. and X.Meng (2026) Probability of ruin within finite time and Cramer–Lundberg inequality for fractional risk processes, Test, 35, 23-48

Multifractality and intermittency

Selected publications and milestones

Multifractality and intermittency 1

- ▶ Anh, V. V.; Leonenko, N. N.; McVinish, R. (2001) Models for fractional Riesz-Bessel motion and related processes, *Fractals*, 7 (2001), 9, no. 3, 329–346
- ▶ Anh, V.V, Leonenko, N.N, and Shieh N.-R., (2008) Multifractality of products geometric Ornstein-Uhlenbeck type processes, *Advanced of Applied Probability*, 40, N4, 1129-1156
- ▶ Anh, V.V, Leonenko, N.N, and Shieh, N.-R., (2009), Multifractal scaling of products of birth-death processes, *Bernoulli*, 15 (2), 508-531
- ▶ Anh, V.V, Leonenko, N.N, and Shieh N.-R., Taufer, E. (2010) Simulation of multifractal products of Ornstein-Uhlenbeck type processes, *Nonlinearity*, 23, 823-843

Multifractality and intermittency 2

- ▶ Denisov, D and Leonenko, N.N. (2016) Limit theorems for multifractal products of geometric stationary processes, Bernoulli, 22, N4, 2579-2608
- ▶ Grahovac, D. and Leonenko, N. and Taqqu, M.S.(2022) Intermittency and multiscaling in limit theorems, Fractals, 30, N 7, 2250137
- ▶ Grahovac, D. and Leonenko, N. and Taqqu, M.S.(2021) Intermittency and infinite variance: the case of integrated supOU processes, Electronic Journal of Probability, 26, art. N 56,1-31
- ▶ Leonenko, N., Macci, C. and Pacchiarotti, B. (2021) Large deviations for a class of tempered subordinators and their inverse processes, Proceedings A of the Royal Society of Edinburgh, 151, N6, 2020-2050

Multifractality and intermittency 3

- ▶ Grahovac, D. and Leonenko, N (2014) Detecting multifractal stochastic processes under heavy-tailed effects, Chaos, Solitons, Fractals, 65, 78-89
- ▶ Grahovac, D., Leonenko, N.N. and Taqqu, M. S. (2015) Scaling properties of the structure function of linear fractional stable motion and estimation of its parameters, Journal of Statistical Physics, 158, 105-119
- ▶ Leonenko, N. N.; Shieh, N-R. (2013) Rényi function for multifractal random fields. Fractals 21 , no. 2, 1350009, 13 pp.
- ▶ Grahovac, D. and Leonenko, N (2018) Bounds for the support of the multifractal spectrum of stochastic processes, Fractals, Vol. 26, No 4, 1850055, 21 pages
- ▶ Grahovac, D. and Leonenko, N and Taqqu, M.S.(2018) Intermittency of trawl processes, Statistic and Probability Letters, 137, 235-242

Spatiotemporal fields

Selected publications and milestones

Spatiotemporal fields

- ▶ Leonenko, N. N.; Ruiz-Medina, M. D. (2023) Sojourn functionals for spatiotemporal Gaussian random fields with long memory, Journal of Applied Probability, 60 , no. 1, 148–165
- ▶ Leonenko, N. and Ruiz-Medina, M.D. (2025) High-Level Moving Excursions for Spatiotemporal Gaussian Random Fields with Long Range Dependence, Journal of Statistical Physics, 192, no.2, Paper N19
- ▶ Leonenko, N., Maini, L., Nourdin, I. and Pistoletto, F. (2024) Limit theorems for p-domain functionals of stationary Gaussian fields, Electronic Journal of Probability, 29,1-33

Ambit **stochastics**

Selected publications and milestones

Ambit stochastics 1

- ▶ Barndorff-Nielsen, O.E. and Leonenko, N.N., (2005), Spectral properties of superpositions of Ornstein-Uhlenbeck type processes, Methodology and Computing in Applied Probability, 7, 335-352
- ▶ Grahovac, D. and Leonenko, N., Sikorskii, A. and Taqqu.M.S. (2019) The unusual properties of aggregated superpositions of Ornstein-Uhlenbeck type processes, Bernoulli, 25, N3, 2029-2050
- ▶ Grahovac, D., Kovtun, A., Leonenko, N. and Pepelyshev, A. (2025) Dickman type stochastic processes with short- and long-range dependence, Stochastics, 97, N6,722-743
- ▶ Anh, V.V.; Heyde, C.C.; Leonenko, N.N. Dynamic models of long-memory processes driven by Lévy noise., Journal of Applied Probability,39 (2002), N 4, 730–747
- ▶ Grahovac, D. and Leonenko, N. and Taqqu, M.S.(2019) Limit theorems, scaling of moments and intermittency for integrated finite variance supOU processes, Stochastic Processes and Applications, 129, N12, 5113-5150
- ▶ Donhauzer, I., Leonenko, N. and Olenko, A. (2026) Construction and limit theorems for supCAR fields, Journal of Theoretical Probability, no. 2, 42pp

Entropy estimation

Selected publications and milestones

Entropy estimation

- ▶ Kozachenko, L.F. and Leonenko, N.N., (1987), A statistical estimate for the entropy of a random vector, Problems Information Transmission., 23(2), 9-16 (more than 1000 citation according to Google Scholar)
- ▶ Leonenko N.N, Pronzato, L. and Savani, V., (2008), A class of Renyi information estimators for multidimensional densities, 36, N5, Annals of Statistics, 2153-2182, 36,N5 Corrections, Annals of Statistics , 2010, 38, N6, 3837-3838
- ▶ Leonenko, N., Makogin, V. and Cadirci, M.S. (2021) The entropy based goodness of fit tests for generalized von Mises-Fisher distributions and beyond, Electronic Journal of Statistics, 15, N2, 6344-6381

Books

Selected publications and milestones

- 1 Leonenko, N.N. (1999), Limit Theorems for Random Fields with Singular Spectrum, Mathematics and its Applications, 465. Kluwer Academic Publishers, Dordrecht/Boston/London
- 2 Ivanov, A.V. and Leonenko, N.N. (1989) Statistical Analysis of Random Fields, Mathematics and its Applications, 28. Kluwer Academic Publishers, Dordrecht/Boston/London

Foundations

Central and non-central limit theory for dependent random fields.

Extensions

Fractional, non-local, spherical, spatiotemporal, and ambit models.

Applications

Inference, experimental design, finance, insurance, entropy, and computation.

Probability as a bridge between structure, dependence, and applications.

Thank you

Questions and discussion