

# BERNOULLI

*Official Journal of the Bernoulli Society for Mathematical Statistics and Probability*

Volume Twenty Six Number Four November 2020 ISSN: 1350-7265

## CONTENTS

VAN HALA, M., BANDYOPADHYAY, S., LAHIRI, S.N. and NORDMAN, D.J. A general frequency domain method for assessing spatial covariance structures	2463
BRUNEL, V.-E. Deviation inequalities for random polytopes in arbitrary convex bodies	2488
DRTON, M., ROBEVA, E. and WEIHS, L. Nested covariance determinants and restricted trek separation in Gaussian graphical models	2503
LI, H., AUE, A. and PAUL, D. High-dimensional general linear hypothesis tests via non-linear spectral shrinkage	2541
LINDSKOG, F. and PAL MAJUMDER, A. Exact long time behavior of some regime switching stochastic processes	2572
GAO, Z. and STOEV, S. Fundamental limits of exact support recovery in high dimensions	2605
JUDITSKY, A. and NEMIROVSKI, A. Estimating linear and quadratic forms via indirect observations	2639
DIEL, R., LE CORFF, S. and LERASLE, M. Learning the distribution of latent variables in paired comparison models with round-robin scheduling	2670
SONG, J., SONG, X. and XU, F. Fractional stochastic wave equation driven by a Gaussian noise rough in space	2699
BONNIER, P. and OBERHAUSER, H. Signature cumulants, ordered partitions, and independence of stochastic processes	2727
DEHLING, H., MATSUI, M., MIKOSCH, T., SAMORODNITSKY, G. and TAFAKORI, L. Distance covariance for discretized stochastic processes	2758
HOLZMANN, H. and MEISTER, A. Rate-optimal nonparametric estimation for random coefficient regression models	2790
ZHAO, Y., GIJBELS, I. and VAN KEILEGOM, I. Inference for semiparametric Gaussian copula model adjusted for linear regression using residual ranks	2815

*(continued on the inside cover)*

The papers published in Bernoulli are indexed or abstracted in *Current Index to Statistics*, *Mathematical Reviews*, *Statistical Theory and Method Abstracts-Zentralblatt (STMA-Z)*, and *Zentralblatt für Mathematik* (also available on the *MATH via STN* database and *Compact MATH CD-ROM*). A list of forthcoming papers can be found online at <http://www.bernoulli-society.org/index.php/publications/bernoulli-journal/bernoulli-journal-papers>

# BERNOULLI

*Official Journal of the Bernoulli Society for Mathematical Statistics  
and Probability*

Volume Twenty Six Number Four November 2020 ISSN: 1350-7265

## CONTENTS

*(Continued)*

XIAO, L.	2847
Asymptotic properties of penalized splines for functional data	
TRUQUET, L.	2876
A perturbation analysis of Markov chains models with time-varying parameters	
TODOROV, V.	2907
Testing and inference for fixed times of discontinuity in semimartingales	
RICHARD, A., TANRÉ, E. and TORRES, S.	2949
Penalisation techniques for one-dimensional reflected rough differential equations	
PAINDAVEINE, D., REMY, J. and VERDEBOUT, T.	2987
Sign tests for weak principal directions	
BRÉCHETEAU, C. and LEVRARD, C.	3017
A $k$ -points-based distance for robust geometric inference	
HÜTTER, J.-C., MAO, C., RIGOLLET, P. and ROBEVA, E.	3051
Estimation of Monge matrices	
TODINO, A.P.	3081
Nodal lengths in shrinking domains for random eigenfunctions on $S^2$	
LOPUSANSCHI, O. and SIMON, D.	3111
Area anomaly in the rough path Brownian scaling limit of hidden Markov walks	
VERSHYNIN, R.	3139
Concentration inequalities for random tensors	
CAN, S.U., EINMAHL, J.H.J. and LAEVEN, R.J.A.	3163
Goodness-of-fit testing for copulas: A distribution-free approach	
GRZYWNY, T. and SZCZYPKOWSKI, K.	3191
Lévy processes: Concentration function and heat kernel bounds	
KATO, S. and MCCULLAGH, P.	3224
Some properties of a Cauchy family on the sphere derived from the Möbius transformations	
TRUQUET, L.	3249
Coupling and perturbation techniques for categorical time series	
ENIKEEVA, F., MUNK, A., POHLMANN, M. and WERNER, F.	3280
Bump detection in the presence of dependency: Does it ease or does it load?	