

Emilio Porcu

List of Publications by Year in descending order

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93
papers

1,711
citations

304743

22
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361022

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94
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docs citations

94
times ranked

571
citing authors

#	ARTICLE	IF	CITATIONS
1	Elastodynamic problem on tensor random fields with fractal and Hurst effects. <i>Meccanica</i> , 2022, 57, 957-970.	2.0	5
2	Unifying compactly supported and Mat�rn covariance functions in spatial statistics. <i>Journal of Multivariate Analysis</i> , 2022, 189, 104949.	1.0	13
3	Parametric nonstationary covariance functions on spheres. <i>Stat</i> , 2022, 11, .	0.4	3
4	Criteria and characterizations for spatially isotropic and temporally symmetric matrix-valued covariance functions. <i>Computational and Applied Mathematics</i> , 2022, 41, .	2.2	2
5	Series expansions among weighted Lebesgue function spaces and applications to positive definite functions on compact two-point homogeneous spaces. <i>Journal of Mathematical Analysis and Applications</i> , 2022, 516, 126487.	1.0	2
6	Nonparametric Bayesian modelling of longitudinally integrated covariance functions on spheres. <i>Computational Statistics and Data Analysis</i> , 2022, , 107555.	1.2	0
7	30�Years of space�time covariance functions. <i>Wiley Interdisciplinary Reviews: Computational Statistics</i> , 2021, 13, e1512.	3.9	47
8	Multivariate isotropic random fields on spheres: Nonparametric Bayesian modeling and Lp fast approximations. <i>Electronic Journal of Statistics</i> , 2021, 15, .	0.7	1
9	Regularity and approximation of Gaussian random fields evolving temporally over compact two-point homogeneous spaces. <i>Test</i> , 2021, 30, 836-860.	1.1	7
10	On streamwise velocity spectra models with fractal and long-memory effects. <i>Physics of Fluids</i> , 2021, 33, 035116.	4.0	12
11	The F-family of covariance functions: A Mat�rn analogue for modeling random fields on spheres. <i>Spatial Statistics</i> , 2021, 43, 100512.	1.9	5
12	Advancing Space�Time Simulation of Random Fields: From Storms to Cyclones and Beyond. <i>Water Resources Research</i> , 2021, 57, e2020WR029466.	4.2	16
13	Nonparametric Bayesian Modeling and Estimation of Spatial Correlation Functions for Global Data. <i>Bayesian Analysis</i> , 2021, 16, .	3.0	2
14	Fast and exact simulation of Gaussian random fields defined on the sphere cross time. <i>Statistics and Computing</i> , 2020, 30, 187-194.	1.5	9
15	Schoenberg coefficients and curvature at the origin of continuous isotropic positive definite kernels on spheres. <i>Statistics and Probability Letters</i> , 2020, 156, 108618.	0.7	5
16	Zastavnyi operators and positive definite radial functions. <i>Statistics and Probability Letters</i> , 2020, 157, 108620.	0.7	6
17	Strict positive definiteness under axial symmetry on the sphere. <i>Stochastic Environmental Research and Risk Assessment</i> , 2020, 34, 723-732.	4.0	5
18	Discussion on A high�resolution bilevel skew�t stochastic generator for assessing Saudi Arabia's wind energy resources. <i>Environmetrics</i> , 2020, 31, e2651.	1.4	1

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19	Space-time autoregressive estimation and prediction with missing data based on Kalman filtering. <i>Environmetrics</i> , 2020, 31, e2627.	1.4	5
20	Regularity, continuity and approximation of isotropic Gaussian random fields on compact two-point homogeneous spaces. <i>Stochastic Processes and Their Applications</i> , 2020, 130, 4873-4891.	0.9	12
21	Families of covariance functions for bivariate random fields on spheres. <i>Spatial Statistics</i> , 2020, 40, 100448.	1.9	8
22	Reduction problems and deformation approaches to nonstationary covariance functions over spheres. <i>Electronic Journal of Statistics</i> , 2020, 14, .	0.7	5
23	Stein hypothesis and screening effect for covariances with compact support. <i>Electronic Journal of Statistics</i> , 2020, 14, .	0.7	2
24	Gneiting Class, Semi-Metric Spaces and Isometric Embeddings. <i>Constructive Mathematical Analysis</i> , 2020, 3, 85-95.	0.7	7
25	A turning bands method for simulating isotropic Gaussian random fields on the sphere. <i>Statistics and Probability Letters</i> , 2019, 144, 9-15.	0.7	10
26	Simulating isotropic vector-valued Gaussian random fields on the sphere through finite harmonics approximations. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1659-1667.	4.0	20
27	Covariance functions for multivariate Gaussian fields evolving temporally over planet earth. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1593-1608.	4.0	26
28	Axially symmetric models for global data: A journey between geostatistics and stochastic generators. <i>Environmetrics</i> , 2019, 30, e2555.	1.4	14
29	Estimation and prediction using generalized Wendland covariance functions under fixed domain asymptotics. <i>Annals of Statistics</i> , 2019, 47, .	2.6	48
30	A semiparametric class of axially symmetric random fields on the sphere. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1863-1874.	4.0	12
31	Nonseparable covariance models on circles cross time: A study of Mexico City ozone. <i>Environmetrics</i> , 2019, 30, e2558.	1.4	13
32	Covariance functions on spheres cross time: Beyond spatial isotropy and temporal stationarity. <i>Statistics and Probability Letters</i> , 2019, 151, 1-7.	0.7	7
33	Z-estimators and auxiliary information for strong mixing processes. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1-11.	4.0	2
34	Regularity properties and simulations of Gaussian random fields on the sphere cross time. <i>Electronic Journal of Statistics</i> , 2018, 12, .	0.7	17
35	Asymmetric matrix-valued covariances for multivariate random fields on spheres. <i>Journal of Statistical Computation and Simulation</i> , 2018, 88, 1850-1862.	1.2	7
36	Strictly positive definite multivariate covariance functions on spheres. <i>Journal of Multivariate Analysis</i> , 2018, 166, 150-159.	1.0	12

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37	Fast and Exact Simulation of Complex-Valued Stationary Gaussian Processes Through Embedding Circulant Matrix. <i>Journal of Computational and Graphical Statistics</i> , 2018, 27, 278-290.	1.7	10
38	Determinantal point process models on the sphere. <i>Bernoulli</i> , 2018, 24, .	1.3	23
39	The Shkarofsky's Gneiting class of covariance models for bivariate Gaussian random fields. <i>Stat</i> , 2018, 7, e207.	0.4	4
40	Schoenberg's theorem for real and complex Hilbert spheres revisited. <i>Journal of Approximation Theory</i> , 2018, 228, 58-78.	0.8	16
41	Equivalence and orthogonality of Gaussian measures on spheres. <i>Journal of Multivariate Analysis</i> , 2018, 167, 306-318.	1.0	11
42	Modeling Temporally Evolving and Spatially Globally Dependent Data. <i>International Statistical Review</i> , 2018, 86, 344-377.	1.9	61
43	Admissible nested covariance models over spheres cross time. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018, 32, 3053-3066.	4.0	14
44	Random Fields with Fractal and Hurst Effects in Mechanics. , 2018, , 1-9.		1
45	From Schoenberg Coefficients to Schoenberg Functions. <i>Constructive Approximation</i> , 2017, 45, 217-241.	3.0	61
46	The dimple problem related to space-time modeling under the Lagrangian framework. <i>Journal of Multivariate Analysis</i> , 2017, 162, 110-121.	1.0	13
47	Estimating covariance functions of multivariate skew-Gaussian random fields on the sphere. <i>Spatial Statistics</i> , 2017, 22, 388-402.	1.9	12
48	Contours and dimple for the Gneiting class of space-time correlation functions. <i>Biometrika</i> , 2017, 104, 995-1001.	2.4	8
49	Composite Likelihood Inference for Multivariate Gaussian Random Fields. <i>Journal of Agricultural, Biological, and Environmental Statistics</i> , 2016, 21, 448-469.	1.4	11
50	Lamb's problem on random mass density fields with fractal and Hurst effects. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160638.	2.1	11
51	Likelihood-based inference for multivariate space-time wrapped-Gaussian fields. <i>Journal of Statistical Computation and Simulation</i> , 2016, 86, 2583-2597.	1.2	5
52	A flexible class of non-separable cross-covariance functions for multivariate space-time data. <i>Spatial Statistics</i> , 2016, 18, 125-146.	1.9	29
53	Covariance tapering for multivariate Gaussian random fields estimation. <i>Statistical Methods and Applications</i> , 2016, 25, 21-37.	1.2	19
54	Spatio-Temporal Covariance and Cross-Covariance Functions of the Great Circle Distance on a Sphere. <i>Journal of the American Statistical Association</i> , 2016, 111, 888-898.	3.1	115

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55	On the Flexibility of Multivariate Covariance Models: Comment on the Paper by Genton and Kleiber. <i>Statistical Science</i> , 2015, 30, .	2.8	20
56	Responses of first-order dynamical systems to Matérn, Cauchy, and Dagum excitations. <i>Mathematics and Mechanics of Complex Systems</i> , 2015, 3, 27-41.	0.9	8
57	Elastic Rods and Shear Beams with Random Field Properties under Random Field Loads: Fractal and Hurst Effects. <i>Journal of Engineering Mechanics - ASCE</i> , 2015, 141, .	2.9	13
58	Harmonic oscillator driven by random processes having fractal and Hurst effects. <i>Acta Mechanica</i> , 2015, 226, 3653-3672.	2.1	13
59	Multivariate and multiradial Schoenberg measures with their dimension walks. <i>Journal of Multivariate Analysis</i> , 2015, 133, 251-265.	1.0	12
60	Classes of compactly supported covariance functions for multivariate random fields. <i>Stochastic Environmental Research and Risk Assessment</i> , 2015, 29, 1249-1263.	4.0	45
61	Nonstationary matrix covariances: compact support, long range dependence and quasi-arithmetic constructions. <i>Stochastic Environmental Research and Risk Assessment</i> , 2015, 29, 193-204.	4.0	19
62	Dimension walks and Schoenberg spectral measures. <i>Proceedings of the American Mathematical Society</i> , 2014, 142, 1813-1824.	0.8	35
63	Bernoulli-Euler beams with random field properties under random field loads: fractal and Hurst effects. <i>Archive of Applied Mechanics</i> , 2014, 84, 1595-1626.	2.2	19
64	Multivariate Spartan spatial random field models. <i>Probabilistic Engineering Mechanics</i> , 2014, 37, 84-92.	2.7	12
65	Radial basis functions with compact support for multivariate geostatistics. <i>Stochastic Environmental Research and Risk Assessment</i> , 2013, 27, 909-922.	4.0	37
66	On Some Local, Global and Regularity Behaviour of Some Classes of Covariance Functions. <i>Lecture Notes in Statistics</i> , 2012, , 221-238.	0.2	11
67	Estimating Space and Space-Time Covariance Functions for Large Data Sets: A Weighted Composite Likelihood Approach. <i>Journal of the American Statistical Association</i> , 2012, 107, 268-280.	3.1	113
68	From Schoenberg to Pick-Nevanlinna: Toward a complete picture of the variogram class. <i>Bernoulli</i> , 2011, 17, .	1.3	29
69	Characterization theorems for the Gneiting class of space-time covariances. <i>Bernoulli</i> , 2011, 17, .	1.3	32
70	Characterization theorems for some classes of covariance functions associated to vector valued random fields. <i>Journal of Multivariate Analysis</i> , 2011, 102, 1293-1301.	1.0	38
71	Features detection in spatial point processes via multivariate techniques. <i>Environmetrics</i> , 2010, 21, 400-414.	1.4	9
72	Mortality risk assessment through stationary space-time covariance functions. <i>Stochastic Environmental Research and Risk Assessment</i> , 2010, 24, 519-526.	4.0	8

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73	On the non-reducibility of non-stationary correlation functions to stationary ones under a class of mean-operator transformations. <i>Stochastic Environmental Research and Risk Assessment</i> , 2010, 24, 599-610.	4.0	7
74	Weighted composite likelihood-based tests for space-time separability of covariance functions. <i>Statistics and Computing</i> , 2010, 20, 283-293.	1.5	11
75	Spatio-temporal stochastic modelling: environmental and health processes. <i>Environmetrics</i> , 2010, 21, 221-223.	1.4	1
76	A Note on Continuous Spatial-Temporal Dynamics of Stochastic Processes. <i>Communications in Statistics - Theory and Methods</i> , 2010, 39, 3472-3484.	1.0	0
77	Quasi-arithmetic means of covariance functions with potential applications to space-time data. <i>Journal of Multivariate Analysis</i> , 2009, 100, 1830-1844.	1.0	52
78	Recent advances to model anisotropic space-time data. <i>Statistical Methods and Applications</i> , 2008, 17, 209-223.	1.2	27
79	On potentially negative space time covariances obtained as sum of products of marginal ones. <i>Annals of the Institute of Statistical Mathematics</i> , 2008, 60, 865-882.	0.8	35
80	New classes of covariance and spectral density functions for spatio-temporal modelling. <i>Stochastic Environmental Research and Risk Assessment</i> , 2008, 22, 65-79.	4.0	57
81	Detecting Features in Spatial Point Processes with Clutter via Local Indicators of Spatial Association. <i>Journal of Computational and Graphical Statistics</i> , 2007, 16, 968-990.	1.7	13
82	Geostatistical Analysis Through Spectral Techniques: Some Words of Caution. <i>Communications in Statistics Part B: Simulation and Computation</i> , 2007, 36, 1035-1051.	1.2	3
83	Mixture-based modeling for space-time data. <i>Environmetrics</i> , 2007, 18, 285-302.	1.4	19
84	Fitting negative spatial covariances to geothermal field temperatures in Nea Kessani (Greece). <i>Environmetrics</i> , 2007, 18, 759-773.	1.4	10
85	A kernel-based method for nonparametric estimation of variograms. <i>Statistica Neerlandica</i> , 2007, 61, 173-197.	1.6	15
86	Covariance functions that are stationary or nonstationary in space and stationary in time. <i>Statistica Neerlandica</i> , 2007, 61, 358-382.	1.6	25
87	La descente et la mont�e tendues: the spatially d-anisotropic and the spatio-temporal case. <i>Stochastic Environmental Research and Risk Assessment</i> , 2007, 21, 683-693.	4.0	18
88	A note on decoupling of local and global behaviours for the Dagum Random Field. <i>Probabilistic Engineering Mechanics</i> , 2007, 22, 320-329.	2.7	28
89	Modelling spatio-temporal data: A new variogram and covariance structure proposal. <i>Statistics and Probability Letters</i> , 2007, 77, 83-89.	0.7	42
90	Nonseparable stationary anisotropic space-time covariance functions. <i>Stochastic Environmental Research and Risk Assessment</i> , 2006, 21, 113-122.	4.0	78

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91	Nonstationary space-time covariance functions induced by dynamical systems. Scandinavian Journal of Statistics, 0, , .	1.4	2
92	Random fields on the hypertorus: Covariance modeling and applications. Environmetrics, 0, , e2701.	1.4	3
93	A stochastic fractional Laplace equation driven by colored noise on bounded domain, and its covariance functional. Stochastic Models, 0, , 1-25.	0.5	0