Jorge Mateu

List of Publications by Year in Descending Order

159 papers	1,517 citations	22 h-index	32 g-index
173 ext. papers	1,801 ext. citations	2 avg, IF	5.1 L-index

#	Paper	IF	Citations
159	A stochastic Bayesian bootstrapping model for COVID-19 data.. *Stochastic Environmental Research and Risk Assessment*, **2022**, 1-11	3.5	1
158	A spatial randomness test based on the box-counting dimension.. *AStA Advances in Statistical Analysis*, **2022**, 1-26	1	0
157	A Bayesian machine learning approach for spatio-temporal prediction of COVID-19 cases.. *Stochastic Environmental Research and Risk Assessment*, **2022**, 1-19	3.5	2
156	Universal, Residual, and External Drift Functional Kriging. *Wiley Series in Probability and Statistics*, **2022**, 55-72	1.3	
155	EDITORIAL from Jorge Mateu. *Journal of Agricultural, Biological, and Environmental Statistics*, **2022**, 27, 1-3	1.9	1
154	Spatial point processes and neural networks: A convenient couple. *Spatial Statistics*, **2022**, 100644	2.2	1
153	A Nonparametric Algorithm for Spatially Dependent Functional Data: Bagging Voronoi for Clustering, Dimensional Reduction, and Regression. *Wiley Series in Probability and Statistics*, **2022**, 211-241	1.3	
152	Introduction to Geostatistical Functional Data Analysis. *Wiley Series in Probability and Statistics*, **2022**, 1-25	1.3	
151	A Comparison of Spatiotemporal and Functional Kriging Approaches. *Wiley Series in Probability and Statistics*, **2022**, 375-402	1.3	
150	Clustering Spatial Functional Data. *Wiley Series in Probability and Statistics*, **2022**, 155-174	1.3	0
149	Spatial Functional Data Analysis for Probability Density Functions: Compositional Functional Data vs. Distributional Data Approach. *Wiley Series in Probability and Statistics*, **2022**, 128-153	1.3	
148	Spatial Prediction and Optimal Sampling for Multivariate Functional Random Fields. *Wiley Series in Probability and Statistics*, **2022**, 329-349	1.3	
147	Mathematical Foundations of Functional Kriging in Hilbert Spaces and Riemannian Manifolds. *Wiley Series in Probability and Statistics*, **2022**, 27-54	1.3	
146	Modeling Spatially Dependent Functional Data by Spatial Regression with Differential Regularization. *Wiley Series in Probability and Statistics*, **2022**, 260-285	1.3	
145	Quasi-maximum Likelihood Estimators for Functional Linear Spatial Autoregressive Models. *Wiley Series in Probability and Statistics*, **2022**, 286-328	1.3	
144	Spatio-temporal small area surveillance of the COVID-19 pandemic. *Spatial Statistics*, **2021**, 100551	2.2	1
143	Contextual contact tracing based on stochastic compartment modeling and spatial risk assessment. *Stochastic Environmental Research and Risk Assessment*, **2021**, 1-25	3.5	1

142	Jorge Mateu's contribution to the Discussion of "Testing by betting: A strategy for statistical and scientific communication" by Glenn Shafer. *Journal of the Royal Statistical Society Series A: Statistics in Society*, **2021**, 184, 458-458	2.1	
141	Second-order and local characteristics of network intensity functions. *Test*, **2021**, 30, 318-340	1.1	
140	Bootstrapping regression models with locally stationary disturbances. *Test*, **2021**, 30, 341-363	1.1	
139	Revisiting the random shift approach for testing in spatial statistics. *Spatial Statistics*, **2021**, 42, 100430	2.2	2
138	Directional analysis for point patterns on linear networks. *Stat*, **2021**, 10, e323	0.7	2
137	Graphical modelling and partial characteristics for multitype and multivariate-marked spatio-temporal point processes. *Computational Statistics and Data Analysis*, **2021**, 156, 107139	1.6	3
136	On new families of anisotropic spatial log-Gaussian Cox processes. *Stochastic Environmental Research and Risk Assessment*, **2021**, 35, 183-213	3.5	0
135	Functional marked point processes: a natural structure to unify spatio-temporal frameworks and to analyse dependent functional data. *Test*, **2021**, 30, 529-568	1.1	2
134	A spatial functional count model for heterogeneity analysis in time. *Stochastic Environmental Research and Risk Assessment*, **2021**, 35, 1825-1849	3.5	0
133	Capturing spatial dependence of COVID-19 case counts with cellphone mobility data. *Spatial Statistics*, **2021**, 100540	2.2	1
132	Assessing local differences between the spatio-temporal second-order structure of two point patterns occurring on the same linear network. *Spatial Statistics*, **2021**, 45, 100534	2.2	1
131	Partial and Semi-Partial Statistics of Spatial Associations for Multivariate Areal Data. *Geographical Analysis*, **2020**,	2.9	2
130	A Distance-based Method for Spatial Prediction in the Presence of Trend. *Journal of Agricultural, Biological, and Environmental Statistics*, **2020**, 25, 315-338	1.9	
129	Metrics and barycenters for point pattern data. *Statistics and Computing*, **2020**, 30, 953-972	1.8	1
128	Wavelet-Based Entropy Measures to Characterize Two-Dimensional Fractional Brownian Fields. *Entropy*, **2020**, 22,	2.8	6
127	Inhomogeneous higher-order summary statistics for point processes on linear networks. *Statistics and Computing*, **2020**, 30, 1221-1239	1.8	4
126	Analyzing car thefts and recoveries with connections to modeling origin–destination point patterns. *Spatial Statistics*, **2020**, 38, 100440	2.2	
125	Analysis of tornado reports through replicated spatiotemporal point patterns. *Journal of the Royal Statistical Society Series C: Applied Statistics*, **2020**, 69, 3-23	1.5	2

124	Spatio-temporal point patterns on linear networks: Pseudo-separable intensity estimation. *Spatial Statistics*, **2020**, 37, 100400	2.2	4
123	Some properties of local weighted second-order statistics for spatio-temporal point processes. *Stochastic Environmental Research and Risk Assessment*, **2020**, 34, 149-168	3.5	3
122	First- and Second-Order Characteristics of Spatio-Temporal Point Processes on Linear Networks. *Journal of Computational and Graphical Statistics*, **2020**, 29, 432-443	1.4	8
121	. *IEEE Access*, **2020**, 8, 209101-209112	3.5	6
120	Spatio-temporal classification in point patterns under the presence of clutter. *Environmetrics*, **2020**, 31, e2599	1.3	2
119	Heteroskedastic geographically weighted regression model for functional data. *Spatial Statistics*, **2020**, 38, 100444	2.2	
118	Space-time autoregressive estimation and prediction with missing data based on Kalman filtering. *Environmetrics*, **2020**, 31, e2627	1.3	1
117	Prediction of spatial functional random processes: comparing functional and spatio-temporal kriging approaches. *Stochastic Environmental Research and Risk Assessment*, **2019**, 33, 1699-1719	3.5	4
116	Resample-smoothing of Voronoi intensity estimators. *Statistics and Computing*, **2019**, 29, 995-1010	1.8	19
115	Fast Kernel Smoothing of Point Patterns on a Large Network using Two-dimensional Convolution. *International Statistical Review*, **2019**, 87, 531-556	1.4	17
114	A Kalman filter method for estimation and prediction of space□time data with an autoregressive structure. *Journal of Statistical Planning and Inference*, **2019**, 203, 117-130	0.8	9
113	The Latent Scale Covariogram: A Tool for Exploring the Spatial Dependence Structure of Nonnormal Responses. *Journal of Computational and Graphical Statistics*, **2019**, 28, 127-141	1.4	2
112	Analysing Multivariate Spatial Point Processes with Continuous Marks: A Graphical Modelling Approach. *International Statistical Review*, **2019**, 87, 44-67	1.4	3
111	Covariance functions for multivariate Gaussian fields evolving temporally over planet earth. *Stochastic Environmental Research and Risk Assessment*, **2019**, 33, 1593-1608	3.5	14
110	Forest Inventory **2019**, 1-9		
109	A simple two-step method for spatio-temporal design-based balanced sampling. *Stochastic Environmental Research and Risk Assessment*, **2018**, 32, 457-468	3.5	3
108	Spatio-temporal analysis with short- and long-memory dependence: a state-space approach. *Test*, **2018**, 27, 221-245	1.1	0
107	Point Patterns Occurring on Complex Structures in Space and Space-Time: An Alternative Network Approach. *Journal of Computational and Graphical Statistics*, **2018**, 27, 312-322	1.4	7

106	A penalized likelihood method for nonseparable space-time generalized additive models. *AStA Advances in Statistical Analysis*, **2018**, 102, 333-357	1	1
105	Air Quality Monitoring Network Design Optimisation for Robust Land Use Regression Models. *Sustainability*, **2018**, 10, 1442	3.6	9
104	Joint second-order parameter estimation for spatio-temporal log-Gaussian Cox processes. *Stochastic Environmental Research and Risk Assessment*, **2018**, 32, 3525-3539	3.5	3
103	A first-order, ratio-based nonparametric separability test for spatiotemporal point processes. *Environmetrics*, **2018**, 29, e2482	1.3	5
102	A distance-based model for spatial prediction using radial basis functions. *AStA Advances in Statistical Analysis*, **2018**, 102, 263-288	1	
101	On Kernel-Based Intensity Estimation of Spatial Point Patterns on Linear Networks. *Journal of Computational and Graphical Statistics*, **2018**, 27, 302-311	1.4	16
100	Equivalence and orthogonality of Gaussian measures on spheres. *Journal of Multivariate Analysis*, **2018**, 167, 306-318	1.4	6
99	Non-linear spatial modeling of rat sightings in relation to urban multi-source foci. *Journal of Infection and Public Health*, **2018**, 11, 667-676	7.4	4
98	Testing for local structure in spatiotemporal point pattern data. *Environmetrics*, **2018**, 29, e2463	1.3	2
97	Measuring spatial inhomogeneity at different spatial scales using hybrids of Gibbs point process models. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 1455-1469	3.5	3
96	Multivariate functional random fields: prediction and optimal sampling. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 53-70	3.5	15
95	Analysing highly complex and highly structured point patterns in space. *Spatial Statistics*, **2017**, 22, 296-305	3.5	4
94	Estimation and prediction of time-varying GARCH models through a state-space representation: a computational approach. *Journal of Statistical Computation and Simulation*, **2017**, 87, 2430-2449	0.9	3
93	Mark variograms for spatio-temporal point processes. *Spatial Statistics*, **2017**, 20, 125-147	2.2	7
92	Modelling count data based on weakly dependent spatial covariates using a copula approach: application to rat sightings. *Environmental and Ecological Statistics*, **2017**, 24, 433-448	2.2	1
91	Hierarchical spatial modeling of the presence of Chagas disease insect vectors in Argentina. A comparative approach. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 461-479	3.5	2
90	ABC Shadow algorithm: a tool for statistical analysis of spatial patterns. *Statistics and Computing*, **2017**, 27, 1225-1238	1.8	6
89	Spatial pattern analysis using hybrid models: an application to the Hellenic seismicity. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 1633-1648	3.5	7

88	Geostatistical mixed beta regression: a Bayesian approach. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 571-584	3.5	3
87	Geospatial Analysis of Extreme Weather Events in Nigeria (1985–2015) Using Self-Organizing Maps. *Advances in Meteorology*, **2017**, 2017, 1-11	1.7	40
86	A generalised linear space–time autoregressive model with space–time autoregressive disturbances. *Journal of Applied Statistics*, **2016**, 43, 1198-1225	1	
85	Beta spatial linear mixed model with variable dispersion using Monte Carlo maximum likelihood. *Statistica Neerlandica*, **2016**, 70, 47-76	0.9	1
84	Spatio-temporal point process statistics: A review. *Spatial Statistics*, **2016**, 18, 505-544	2.2	29
83	Spatial generalised linear mixed models based on distances. *Statistical Methods in Medical Research*, **2016**, 25, 2138-2160	2.3	
82	Optimal sampling for spatial prediction of functional data. *Statistical Methods and Applications*, **2016**, 25, 39-54	0.8	10
81	Consistent Smooth Bootstrap Kernel Intensity Estimation for Inhomogeneous Spatial Poisson Point Processes. *Scandinavian Journal of Statistics*, **2016**, 43, 416-435	0.8	13
80	Optimal dynamic spatial sampling. *Environmetrics*, **2016**, 27, 293-305	1.3	1
79	Analysis of multispecies point patterns by using multivariate log-Gaussian Cox processes. *Journal of the Royal Statistical Society Series C: Applied Statistics*, **2016**, 65, 77-96	1.5	20
78	Multiresolution analysis of linearly oriented spatial point patterns. *Journal of Statistical Computation and Simulation*, **2015**, 85, 621-637	0.9	5
77	Discussion of the paper "Analysis of spatio-temporal mobile phone data: a case study in the metropolitan area of Milan". *Statistical Methods and Applications*, **2015**, 24, 315-319	0.8	1
76	On the performance of two clustering methods for spatial functional data. *AStA Advances in Statistical Analysis*, **2015**, 99, 467-492	1	19
75	Distance-based beta regression for prediction of mutual funds. *AStA Advances in Statistical Analysis*, **2015**, 99, 83-106	1	2
74	Bayesian spatio-temporal prediction of cancer dynamics. *Computers and Mathematics With Applications*, **2015**, 70, 857-868	2.7	5
73	Bibliography and further reading. *Wiley Series in Probability and Statistics*, **2015**, 327-338	1.3	
72	Multivariate product-shot-noise Cox point process models. *Biometrics*, **2015**, 71, 1022-33	1.8	8
71	2D Anisotropic Wavelet Entropy with an Application to Earthquakes in Chile. *Entropy*, **2015**, 17, 4155-4172	2.28	10

70	Residual Kriging for Functional Spatial Prediction of Salinity Curves. *Communications in Statistics - Theory and Methods*, **2015**, 44, 798-809	0.5	13
69	Spatio-temporal stochastic modelling of environmental hazards. *Spatial Statistics*, **2015**, 14, 115-118	2.2	
68	On measures of dissimilarity between point patterns: classification based on prototypes and multidimensional scaling. *Biometrical Journal*, **2015**, 57, 340-58	1.5	9
67	Risk factors and spatial distribution of urban rat infestations. *Journal of Pest Science*, **2014**, 87, 107-115	5.5	15
66	Modelling of the spatio-temporal distribution of rat sightings in an urban environment. *Spatial Statistics*, **2014**, 9, 192-206	2.2	14
65	Spatio-temporal log-Gaussian Cox processes for modelling wildfire occurrence: the case of Catalonia, 1994–2008. *Environmental and Ecological Statistics*, **2014**, 21, 531-563	2.2	26
64	Local Clustering in Spatio-Temporal Point Patterns. *Lecture Notes in Earth System Sciences*, **2014**, 171-174	0.4	1
63	A spatio-temporal Poisson hurdle point process to model wildfires. *Stochastic Environmental Research and Risk Assessment*, **2014**, 28, 1671-1684	3.5	26
62	Kriging with external drift for functional data for air quality monitoring. *Stochastic Environmental Research and Risk Assessment*, **2014**, 28, 1171-1186	3.5	47
61	Kriging for Functional Data **2014**,		1
60	A wavelet-based approach to quantify the anisotropy degree of spatial random point configurations. *International Journal of Wavelets, Multiresolution and Information Processing*, **2014**, 12, 1450037	0.9	1
59	Object oriented data analysis under spatial correlation. *Biometrical Journal*, **2014**, 56, 766-7	1.5	1
58	A universal kriging approach for spatial functional data. *Stochastic Environmental Research and Risk Assessment*, **2013**, 27, 1553-1563	3.5	48
57	Similarity measures of conditional intensity functions to test separability in multidimensional point processes. *Stochastic Environmental Research and Risk Assessment*, **2013**, 27, 1193-1205	3.5	10
56	On a class of non-stationary, compactly supported spatial covariance functions. *Stochastic Environmental Research and Risk Assessment*, **2013**, 27, 297-309	3.5	12
55	Spatial pattern modelling of wildfires in Catalonia, Spain 2004–2008. *Environmental Modelling and Software*, **2013**, 40, 235-244	5.2	24
54	A CONTINUOUS WAVELET-BASED APPROACH TO DETECT ANISOTROPIC PROPERTIES IN SPATIAL POINT PROCESSES. *International Journal of Wavelets, Multiresolution and Information Processing*, **2013**, 11, 1350017	0.9	3
53	Kriging for Functional Data **2013**,		3

52	Hybrids of Gibbs Point Process Models and Their Implementation. *Journal of Statistical Software*, **2013**, 55,	7.3	20
51	Outlier Detection for Geostatistical Functional Data: An Application to Sensor Data. *Studies in Classification, Data Analysis, and Knowledge Organization*, **2013**, 131-138	0.2	2
50	Hierarchical clustering of spatially correlated functional data. *Statistica Neerlandica*, **2012**, 66, 403-421	0.9	36
49	Estimating Space and Space-Time Covariance Functions for Large Data Sets: A Weighted Composite Likelihood Approach. *Journal of the American Statistical Association*, **2012**, 107, 268-280	2.8	85
48	Understanding the nesting spatial behaviour of gorillas in the Kagwene Sanctuary, Cameroon. *Stochastic Environmental Research and Risk Assessment*, **2012**, 26, 793-811	3.5	16
47	New classes of spectral densities for lattice processes and random fields built from simple univariate margins. *Stochastic Environmental Research and Risk Assessment*, **2012**, 26, 479-490	3.5	2
46	Clustering Spatially Correlated Functional Data. *Contributions To Statistics*, **2011**, 277-282	0.1	1
45	Ordinary kriging for function-valued spatial data. *Environmental and Ecological Statistics*, **2011**, 18, 411-42[illegible]	2.6	101
44	On tree intensity estimation for forest inventories: Some statistical issues. *Biometrical Journal*, **2011**, 53, 994-1010	1.5	5
43	Mapping the Quality of Life Experience in Alfama: A Case Study in Lisbon, Portugal. *Lecture Notes in Computer Science*, **2011**, 269-283	0.9	1
42	A third-order point process characteristic for multi-type point processes. *Statistica Neerlandica*, **2010**, 64, 19-44	0.9	1
41	Continuous Time-Varying Kriging for Spatial Prediction of Functional Data: An Environmental Application. *Journal of Agricultural, Biological, and Environmental Statistics*, **2010**, 15, 66-82	1.9	53
40	Analysis of forest thinning strategies through the development of space–time growth–interaction simulation models. *Stochastic Environmental Research and Risk Assessment*, **2009**, 23, 275-288	3.5	22
39	Characterising forest spatial structure through inhomogeneous second order characteristics. *Stochastic Environmental Research and Risk Assessment*, **2009**, 23, 387-397	3.5	22
38	Quasi-arithmetic means of covariance functions with potential applications to space–time data. *Journal of Multivariate Analysis*, **2009**, 100, 1830-1844	1.4	35
37	On Random and Gibbsian Particle Motions for Point Processes Evolving in Space and Time. *Communications in Statistics Part B: Simulation and Computation*, **2008**, 37, 380-395	0.6	1
36	The Dagum family of isotropic correlation functions. *Bernoulli*, **2008**, 14,	1.6	37
35	On potentially negative space time covariances obtained as sum of products of marginal ones. *Annals of the Institute of Statistical Mathematics*, **2008**, 60, 865-882	1	29

34	New classes of covariance and spectral density functions for spatio-temporal modelling. *Stochastic Environmental Research and Risk Assessment*, **2008**, 22, 65-79	3.5	50
33	On the Second Order Properties of the Multidimensional Periodogram for Regularly Spaced Data **2008**, 53, 403-410	0.1	1
32	Point-wise Kriging for Spatial Prediction of Functional Data. *Contributions To Statistics*, **2008**, 135-141	0.1	4
31	Modelling forest dynamics: a perspective from point process methods. *Biometrical Journal*, **2007**, 49, 176-96	1.5	18
30	Mixture-based modeling for space□time data. *Environmetrics*, **2007**, 18, 285-302	1.3	14
29	Fitting negative spatial covariances to geothermal field temperatures in Nea Kessani (Greece). *Environmetrics*, **2007**, 18, 759-773	1.3	10
28	Disentangling mark/point interaction in marked-point processes. *Computational Statistics and Data Analysis*, **2007**, 51, 3123-3144	1.6	6
27	Model comparison and selection for stationary space□time models. *Computational Statistics and Data Analysis*, **2007**, 51, 4577-4596	1.6	23
26	A kernel-based method for nonparametric estimation of variograms. *Statistica Neerlandica*, **2007**, 61, 173-197	0.9	13
25	Covariance functions that are stationary or nonstationary in space and stationary in time. *Statistica Neerlandica*, **2007**, 61, 358-382	0.9	18
24	La descente et la monté□ □endues: the spatially d-anisotropic and the spatio-temporal case. *Stochastic Environmental Research and Risk Assessment*, **2007**, 21, 683-693	3.5	12
23	Modelling spatio-temporal data: A new variogram and covariance structure proposal. *Statistics and Probability Letters*, **2007**, 77, 83-89	0.6	37
22	Nonseparable stationary anisotropic space□time covariance functions. *Stochastic Environmental Research and Risk Assessment*, **2006**, 21, 113-122	3.5	61
21	Spatio-temporal modeling of benthic biological species. *Journal of Environmental Management*, **2004**, 71, 67-77	7.9	
20	Computational issues for perfect simulation in spatial point patterns. *Communications in Nonlinear Science and Numerical Simulation*, **2004**, 9, 229-240	3.7	
19	Parametric Procedures in the Analysis of Replicated Pairwise Interaction Point Patterns. *Biometrical Journal*, **2001**, 43, 375-394	1.5	11
18	Pseudo-likelihood Inference for Gibbs Processes with Exponential Families through Generalized Linear Models. *Statistical Inference for Stochastic Processes*, **2001**, 4, 125-154	0.7	5
17	Likelihood Inference for Gibbs Processes in the Analysis of Spatial Point Patterns*. *International Statistical Review*, **2001**, 69, 81-104	1.4	10

16	Likelihood Inference for Gibbs Processes in the Analysis of Spatial Point Patterns. *International Statistical Review*, **2001**, 69, 81	1.4	
15	A comparison between parametric and non-parametric approaches to the analysis of replicated spatial point patterns. *Advances in Applied Probability*, **2000**, 32, 331-343	0.7	37
14	Second-order characteristics of spatial marked processes with applications. *Nonlinear Analysis: Real World Applications*, **2000**, 1, 145-162	2.1	12
13	Geostatistical Data Versus Point Process Data: Analysis of Second-Order Characteristics. *Quantitative Geology and Geostatistics*, **1999**, 213-224		1
12	A Classification of Sediment Types Based on Statistical Multivariate Techniques. *Water, Air, and Soil Pollution*, **1998**, 107, 91-104	2.6	11
11	Methods of Assessing and Achieving Normality Applied to Environmental Data. *Environmental Management*, **1997**, 21, 767-77	3.1	9
10	Assessing similarities between spatial point patterns with a Siamese neural network discriminant model. *Advances in Data Analysis and Classification*,1	1.8	2
9	Two-way layout factorial experiments of spatial point pattern responses in mineral flotation. *Test*,1	1.1	0
8	Spatial Cox processes in an infinite-dimensional framework. *Test*,1	1.1	2
7	Classification of Events Using Local Pair Correlation Functions for Spatial Point Patterns. *Journal of Agricultural, Biological, and Environmental Statistics*,1	1.9	
6	On the trend detection of time-ordered intensity images of point processes on linear networks. *Communications in Statistics Part B: Simulation and Computation*,1-13	0.6	0
5	Modeling the Influence of Places on Crime Risk Through a Non-Linear Effects Model: a Comparison with Risk Terrain Modeling. *Applied Spatial Analysis and Policy*,1	1.7	
4	A Bayesian Spatial Analysis of the Heterogeneity in Human Mobility Changes During the First Wave of the COVID-19 Epidemic in the United States. *American Statistician*,1-9	5	0
3	Collecting Spatio-Temporal Data1-36		1
2	Nearest neighbour distance matching Leave-One-Out Cross-Validation for map validation. *Methods in Ecology and Evolution*,	7.7	3
1	Self-exciting point process modelling of crimes on linear networks. *Statistical Modelling*,1471082X221094...	1.7	0