

# MarÃ-a Dolores Ruiz-Medina

## List of Publications by Year in descending order

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112  
papers

1,291  
citations

430874

18  
h-index

477307

29  
g-index

114  
all docs

114  
docs citations

114  
times ranked

467  
citing authors

| #  | ARTICLE                                                                                                                                                                    | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1  | Infinite-dimensional Divergence Information Analysis. Studies in Systems, Decision and Control, 2023, , 147-157.                                                           | 1.0 | 1         |
| 2  | Spatial Cox processes in an infinite-dimensional framework. Test, 2022, 31, 175-203.                                                                                       | 1.1 | 5         |
| 3  | Bayesian surface regression versus spatial spectral nonparametric curve regression. Spatial Statistics, 2022, 50, 100604.                                                  | 1.9 | 0         |
| 4  | A spatial functional count model for heterogeneity analysis in time. Stochastic Environmental Research and Risk Assessment, 2021, 35, 1825-1849.                           | 4.0 | 1         |
| 5  | COVID-19 mortality analysis from soft-data multivariate curve regression and machine learning. Stochastic Environmental Research and Risk Assessment, 2021, 35, 2659-2678. | 4.0 | 12        |
| 6  | Prediction of air pollutants PM10 by ARBX(1) processes. Stochastic Environmental Research and Risk Assessment, 2019, 33, 1721-1736.                                        | 4.0 | 7         |
| 7  | Increasing domain asymptotics for the first Minkowski functional of spherical random fields. Theory of Probability and Mathematical Statistics, 2019, 97, 127-149.         | 0.5 | 3         |
| 8  | Dynamical multiple regression in function spaces, under kernel regressors, with ARH(1) errors. Test, 2019, 28, 943-968.                                                    | 1.1 | 1         |
| 9  | Strongly consistent autoregressive predictors in abstract Banach spaces. Journal of Multivariate Analysis, 2019, 170, 186-201.                                             | 1.0 | 11        |
| 10 | A note on strong-consistency of componentwise ARH(1) predictors. Statistics and Probability Letters, 2019, 145, 224-228.                                                   | 0.7 | 1         |
| 11 | Log-Gaussian Cox processes in infinite-dimensional spaces. Theory of Probability and Mathematical Statistics, 2018, 95, 173-193.                                           | 0.5 | 0         |
| 12 | Spatial-depth functional estimation of ocean temperature from non-separable covariance models. Stochastic Environmental Research and Risk Assessment, 2017, 31, 39-51.     | 4.0 | 2         |
| 13 | Asymptotic properties of a component-wise ARH(1) plug-in predictor. Journal of Multivariate Analysis, 2017, 155, 12-34.                                                    | 1.0 | 7         |
| 14 | Rosenblatt distribution subordinated to Gaussian random fields with long-range dependence. Stochastic Analysis and Applications, 2017, 35, 144-177.                        | 1.5 | 12        |
| 15 | Non-central limit theorems for random fields subordinated to gamma-correlated random fields. Bernoulli, 2017, 23, .                                                        | 1.3 | 2         |
| 16 | Asymptotic properties of parameter estimates for random fields with tapered data. Electronic Journal of Statistics, 2017, 11, .                                            | 0.7 | 7         |
| 17 | Detecting hidden periodicities for models with cyclical errors. Statistics and Its Interface, 2017, 10, 107-118.                                                           | 0.3 | 1         |
| 18 | Space-Time Fractional Stochastic Equations on Regular Bounded Open Domains. Fractional Calculus and Applied Analysis, 2016, 19, 1161-1199.                                 | 2.2 | 20        |

| #  | ARTICLE                                                                                                                                                               | IF  | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Fractional-In-Time and Multifractional-In-Space Stochastic Partial Differential Equations. Fractional Calculus and Applied Analysis, 2016, 19, 1434-1459.             | 2.2 | 11        |
| 20 | Plug-in prediction intervals for a special class of standard ARH(1) processes. Journal of Multivariate Analysis, 2016, 146, 138-150.                                  | 1.0 | 3         |
| 21 | Moment and Bayesian wavelet regression from spatially correlated functional data. Stochastic Environmental Research and Risk Assessment, 2016, 30, 523-557.           | 4.0 | 5         |
| 22 | Consistency of the plug-in functional predictor of the Ornstein-Uhlenbeck process in Hilbert and Banach spaces. Statistics and Probability Letters, 2016, 117, 12-22. | 0.7 | 5         |
| 23 | Wavelet nonparametric estimation from strong spatial correlated high-dimensional data. Spatial Statistics, 2016, 18, 363-385.                                         | 1.9 | 1         |
| 24 | Functional analysis of variance for Hilbert-valued multivariate fixed effect models. Statistics, 2016, 50, 689-715.                                                   | 0.6 | 5         |
| 25 | New compactly supported spatiotemporal covariance functions from SPDEs. Statistical Methods and Applications, 2016, 25, 125-141.                                      | 1.2 | 4         |
| 26 | On a class of minimum contrast estimators for Gegenbauer random fields. Test, 2015, 24, 657-680.                                                                      | 1.1 | 9         |
| 27 | Wavelet-Based Semiparametric Estimation of Ocean Surface Temperature. Mathematical Geosciences, 2015, 47, 149-171.                                                    | 2.4 | 3         |
| 28 | Comments on: Comparing and selecting spatial predictors using local criteria. Test, 2015, 24, 45-46.                                                                  | 1.1 | 0         |
| 29 | Estimation of harmonic component in regression with cyclically dependent errors. Statistics, 2015, 49, 156-186.                                                       | 0.6 | 18        |
| 30 | Maximum-Likelihood Asymptotic Inference for Autoregressive Hilbertian Processes. Methodology and Computing in Applied Probability, 2015, 17, 207-222.                 | 1.2 | 0         |
| 31 | Least-Squares Estimation of Multifractional Random Fields in a Hilbert-Valued Context. Journal of Optimization Theory and Applications, 2015, 167, 888-911.           | 1.5 | 2         |
| 32 | Equivalence of Gaussian measures of multivariate random fields. Stochastic Environmental Research and Risk Assessment, 2015, 29, 325-334.                             | 4.0 | 11        |
| 33 | A Central Limit Result in the Wavelet Domain for Minimum Contrast Estimation of Fractal Random Fields. Theory of Probability and Its Applications, 2014, 58, 458-486. | 0.3 | 0         |
| 34 | Gegenbauer random fields. Random Operators and Stochastic Equations, 2014, 22, 1-16.                                                                                  | 0.1 | 5         |
| 35 | Functional time series analysis of spatio-temporal epidemiological data. Stochastic Environmental Research and Risk Assessment, 2014, 28, 943-954.                    | 4.0 | 20        |
| 36 | Spatial functional normal mixed effect approach for curve classification. Advances in Data Analysis and Classification, 2014, 8, 257-285.                             | 1.4 | 7         |

| #  | ARTICLE                                                                                                                                                                                                                  | IF  | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Bayesian estimation in a high dimensional parameter framework. Electronic Journal of Statistics, 2014, 8, .                                                                                                              | 0.7 | 6         |
| 38 | Integration of spatial functional interaction in the extrapolation of ocean surface temperature anomalies due to global warming. International Journal of Applied Earth Observation and Geoinformation, 2013, 22, 27-39. | 2.8 | 12        |
| 39 | Wavelet-Based Estimation of Anisotropic Spatiotemporal Long-Range Dependence. Stochastic Analysis and Applications, 2013, 31, 359-380.                                                                                   | 1.5 | 2         |
| 40 | Macroscaling Limit Theorems for Filtered Spatiotemporal Random Fields. Stochastic Analysis and Applications, 2013, 31, 460-508.                                                                                          | 1.5 | 11        |
| 41 | Heterogeneous Spatial Dynamical Regression in a Hilbert-Valued Context. Stochastic Analysis and Applications, 2013, 31, 509-527.                                                                                         | 1.5 | 4         |
| 42 | Limit theorems for weighted nonlinear transformations of Gaussian stationary processes with singular spectra. Annals of Probability, 2013, 41, .                                                                         | 1.8 | 30        |
| 43 | New challenges in spatial and spatiotemporal functional statistics for high-dimensional data. Spatial Statistics, 2012, 1, 82-91.                                                                                        | 1.9 | 16        |
| 44 | Random Fields with Multifractional Regularity Order on Heterogenous Fractal Domains. Stochastic Analysis and Applications, 2012, 30, 849-864.                                                                            | 1.5 | 1         |
| 45 | Wavelet-RKHS-based functional statistical classification. Advances in Data Analysis and Classification, 2012, 6, 201-217.                                                                                                | 1.4 | 10        |
| 46 | Spatial functional prediction from spatial autoregressive Hilbertian processes. Environmetrics, 2012, 23, 119-128.                                                                                                       | 1.4 | 34        |
| 47 | Local waveletâ€vagueletteâ€based functional classification of gene expression data. Biometrical Journal, 2012, 54, 75-93.                                                                                                | 1.0 | 5         |
| 48 | Spatial autoregressive functional plug-in prediction of ocean surface temperature. Stochastic Environmental Research and Risk Assessment, 2012, 26, 335-344.                                                             | 4.0 | 27        |
| 49 | Minimum Contrast Parameter Estimation for Fractal Random Fields Based on the Wavelet Periodogram. Communications in Statistics - Theory and Methods, 2011, 40, 3599-3613.                                                | 1.0 | 3         |
| 50 | Fractional Elliptic, Hyperbolic and Parabolic Random Fields. Electronic Journal of Probability, 2011, 16, .                                                                                                              | 1.0 | 17        |
| 51 | Entropy-based correlated shrinkage of spatial random processes. Stochastic Environmental Research and Risk Assessment, 2011, 25, 389-402.                                                                                | 4.0 | 3         |
| 52 | Spatial autoregressive and moving average Hilbertian processes. Journal of Multivariate Analysis, 2011, 102, 292-305.                                                                                                    | 1.0 | 41        |
| 53 | The Dagum and auxiliary covariance families: Towards reconciling two-parameter models that separate fractal dimension and the Hurst effect. Probabilistic Engineering Mechanics, 2011, 26, 259-268.                      | 2.7 | 15        |
| 54 | Computing functional estimators of spatiotemporal long-range dependence parameters in the spectral-wavelet domain. Journal of Statistical Planning and Inference, 2011, 141, 2417-2427.                                  | 0.6 | 6         |

| #  | ARTICLE                                                                                                                                                                            | IF  | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 55 | Multifractional Random Systems on Fractal Domains. Understanding Complex Systems, 2011, , 357-378.                                                                                 | 0.6 | 0         |
| 56 | Functional maximum-likelihood estimation of ARH(p) models. Stochastic Environmental Research and Risk Assessment, 2010, 24, 131-146.                                               | 4.0 | 21        |
| 57 | Spatiotemporal filtering from fractal spatial functional data sequence. Stochastic Environmental Research and Risk Assessment, 2010, 24, 527-538.                                  | 4.0 | 8         |
| 58 | Multifractional Markov Processes in Heterogeneous Domains. Stochastic Analysis and Applications, 2010, 29, 15-47.                                                                  | 1.5 | 6         |
| 59 | Spatial Scalings for Randomly Initialized Heat and Burgers Equations with Quadratic Potentials. Stochastic Analysis and Applications, 2010, 28, 303-321.                           | 1.5 | 3         |
| 60 | Functional denoising and reconstruction of fractal image sequences. Random Operators and Stochastic Equations, 2009, 17, .                                                         | 0.1 | 0         |
| 61 | Multi-spectral decomposition of functional autoregressive models. Stochastic Environmental Research and Risk Assessment, 2009, 23, 289-297.                                        | 4.0 | 19        |
| 62 | Gaussian Scenario for the Heat Equation with Quadratic Potential and Weakly Dependent Data with Applications. Methodology and Computing in Applied Probability, 2008, 10, 595-620. | 1.2 | 5         |
| 63 | Comments on: Assessing probabilistic forecasts of multivariate quantities, with an application to ensemble predictions of surface winds. Test, 2008, 17, 236-237.                  | 1.1 | 0         |
| 64 | Spatio-temporal modeling of environmental and health processes. Stochastic Environmental Research and Risk Assessment, 2008, 22, 1-2.                                              | 4.0 | 13        |
| 65 | Multifractality in space-time statistical models. Stochastic Environmental Research and Risk Assessment, 2008, 22, 81-86.                                                          | 4.0 | 14        |
| 66 | Spatiotemporal random fields associated with stochastic fractional Helmholtz and heat equations. Stochastic Environmental Research and Risk Assessment, 2008, 22, 3-13.            | 4.0 | 8         |
| 67 | Semiparametric estimation of spatial long-range dependence. Journal of Statistical Planning and Inference, 2008, 138, 1479-1495.                                                   | 0.6 | 13        |
| 68 | Parameter Estimation of Self-Similar Spatial Covariogram Models. Communications in Statistics - Theory and Methods, 2008, 37, 1011-1023.                                           | 1.0 | 2         |
| 69 | Spectral-Marginal-Based Estimation of Spatiotemporal Long-Range Dependence. Communications in Statistics - Theory and Methods, 2008, 38, 103-114.                                  | 1.0 | 6         |
| 70 | Functional estimation of spatiotemporal heterogeneities. Environmetrics, 2007, 18, 775-792.                                                                                        | 1.4 | 7         |
| 71 | Kalman filtering from POP-based diagonalization of ARH(1). Computational Statistics and Data Analysis, 2007, 51, 4994-5008.                                                        | 1.2 | 11        |
| 72 | Wavelet-vaguellette decomposition of spatiotemporal random fields. Stochastic Environmental Research and Risk Assessment, 2007, 21, 273-281.                                       | 4.0 | 7         |

| #  | ARTICLE                                                                                                                                                             | IF  | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Estimation of intrinsic processes affected by additive fractal noise. Journal of Multivariate Analysis, 2006, 97, 1361-1381.                                        | 1.0 | 10        |
| 74 | Scaling Laws for the Multidimensional Burgers Equation with Quadratic External Potential. Journal of Statistical Physics, 2006, 124, 191-205.                       | 1.2 | 17        |
| 75 | Spatiotemporal generation of long-range dependence models and estimation. Environmetrics, 2006, 17, 139-146.                                                        | 1.4 | 8         |
| 76 | Strongly dependent Gaussian scenarios for the Burgers turbulence problem with quadratic external potential. Random Operators and Stochastic Equations, 2006, 14, .  | 0.1 | 2         |
| 77 | Spatial and Spatiotemporal Karhunen-Loève-Type Representations on Fractal Domains. Stochastic Analysis and Applications, 2006, 24, 195-219.                         | 1.5 | 7         |
| 78 | Multifractional Probabilistic Laws. , 2006, , 143-153.                                                                                                              |     | 0         |
| 79 | Fractional kinetic equations driven by Gaussian or infinitely divisible noise. Advances in Applied Probability, 2005, 37, 366-392.                                  | 0.7 | 8         |
| 80 | Fractional kinetic equations driven by Gaussian or infinitely divisible noise. Advances in Applied Probability, 2005, 37, 366-392.                                  | 0.7 | 19        |
| 81 | Fractional random fields associated with stochastic fractional heat equations. Advances in Applied Probability, 2005, 37, 108-133.                                  | 0.7 | 13        |
| 82 | Diffusion on multifractals. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e2043-e2056.                                                              | 1.1 | 16        |
| 83 | A study on sensitivity of spatial sampling designs to a priori discretization schemes. Environmental Modelling and Software, 2005, 20, 891-902.                     | 4.5 | 5         |
| 84 | Generalized approaches to spatial sampling design. Environmetrics, 2005, 16, 523-534.                                                                               | 1.4 | 13        |
| 85 | Joint estimation of spatial deformation and blurring in environmental data. Stochastic Environmental Research and Risk Assessment, 2005, 19, 1-7.                   | 4.0 | 8         |
| 86 | Fractional random fields associated with stochastic fractional heat equations. Advances in Applied Probability, 2005, 37, 108-133.                                  | 0.7 | 56        |
| 87 | Fractional Generalized Random Fields of Variable Order. Stochastic Analysis and Applications, 2004, 22, 775-799.                                                    | 1.5 | 57        |
| 88 | FRACTIONAL RANDOM FIELDS ON DOMAINS WITH FRACTAL BOUNDARY. Infinite Dimensional Analysis, Quantum Probability and Related Topics, 2004, 07, 395-417.                | 0.5 | 15        |
| 89 | Wavelet-based functional reconstruction and extrapolation of fractional random fields. Test, 2004, 13, 417-444.                                                     | 1.1 | 3         |
| 90 | Fractional-order regularization and wavelet approximation to the inverse estimation problem for random fields. Journal of Multivariate Analysis, 2003, 85, 192-216. | 1.0 | 24        |

| #   | ARTICLE                                                                                                                                                                       | IF  | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91  | Functional stochastic modeling and prediction of spatiotemporal processes. Journal of Geophysical Research, 2003, 108, n/a-n/a.                                               | 3.3 | 8         |
| 92  | Fractional Generalized Random Fields on Bounded Domains. Stochastic Analysis and Applications, 2003, 21, 465-492.                                                             | 1.5 | 44        |
| 93  | Multiscale estimation of processes related to the fractional Black-Scholes equation. Computational Statistics, 2003, 18, 401-415.                                             | 1.5 | 1         |
| 94  | Spatio-temporal filtering using wavelets. Stochastic Environmental Research and Risk Assessment, 2002, 16, 241-266.                                                           | 4.0 | 19        |
| 95  | DIFFERENTIAL REPRESENTATION AND MARKOV PROPERTY OF GENERALIZED RANDOM FIELDS. Stochastic Analysis and Applications, 2001, 19, 481-498.                                        | 1.5 | 4         |
| 96  | Stochastic fractional-order differential models with fractal boundary conditions. Statistics and Probability Letters, 2001, 54, 47-60.                                        | 0.7 | 25        |
| 97  | Scaling limit solution of a fractional Burgers equation. Stochastic Processes and Their Applications, 2001, 93, 285-300.                                                      | 0.9 | 23        |
| 98  | Application of Hilbert-Space Methods to Random Field Modelling and Estimation. American Journal of Mathematical and Management Sciences, 2001, 21, 263-282.                   | 0.9 | 0         |
| 99  | Fractional diffusion and fractional heat equation. , 2000, 32, 1077-1099.                                                                                                     |     | 47        |
| 100 | Fractional diffusion and fractional heat equation. Advances in Applied Probability, 2000, 32, 1077-1099.                                                                      | 0.7 | 57        |
| 101 | The Wiener-Hopf integral equation for fractional Riesz-Bessel motion. ANZIAM Journal, 2000, 42, 41-54.                                                                        | 0.2 | 2         |
| 102 | Covariance factorisation and abstract representation of generalised random fields. Bulletin of the Australian Mathematical Society, 2000, 62, 319-334.                        | 0.5 | 9         |
| 103 | Estimation and filtering of fractional generalised random fields. Journal of the Australian Mathematical Society Series A Pure Mathematics and Statistics, 2000, 69, 336-361. | 0.3 | 17        |
| 104 | Possible long-range dependence in fractional random fields. Journal of Statistical Planning and Inference, 1999, 80, 95-110.                                                  | 0.6 | 111       |
| 105 | Multi-resolution approximation to the stochastic inverse problem. Advances in Applied Probability, 1999, 31, 1039-1057.                                                       | 0.7 | 2         |
| 106 | Multi-resolution approximation to the stochastic inverse problem. Advances in Applied Probability, 1999, 31, 1039-1057.                                                       | 0.7 | 22        |
| 107 | Long-range dependence and second-order intermittency of two dimensional turbulence. Environmental Modelling and Software, 1998, 13, 233-238.                                  | 4.5 | 10        |
| 108 | Two-parameter diffusions random fields. Stochastic Analysis and Applications, 1998, 16, 391-402.                                                                              | 1.5 | 2         |

| #   | ARTICLE                                                                                                                               | IF  | CITATIONS |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 109 | A series expansion approach to the inverse problem. Journal of Applied Probability, 1998, 35, 371-382.                                | 0.7 | 3         |
| 110 | A series expansion approach to the inverse problem. Journal of Applied Probability, 1998, 35, 371-382.                                | 0.7 | 5         |
| 111 | Orthogonal representations of random fields and an application to geophysics data. Journal of Applied Probability, 1997, 34, 458-476. | 0.7 | 2         |
| 112 | On the orthogonal representation of generalized random fields. Statistics and Probability Letters, 1997, 31, 145-153.                 | 0.7 | 8         |