Dionissios Hristopulos

List of Publications by Year in Descending Order

113 papers	1,298 citations	21 h-index	31 g-index
137 ext. papers	1,530 ext. citations	2.8 avg, IF	5.24 L-index

#	Paper	IF	Citations
113	Very Fast Simulated Reannealing. *Encyclopedia of Earth Sciences Series*, **2022**, 1-6	0	
112	Non-parametric Kernel-Based Estimation and Simulation of Precipitation Amount. *Journal of Hydrology*, **2022**, 127988	6	2
111	Deep Learning Recurrent Neural Network for Concussion Classification in Adolescents Using Raw Electroencephalography Signals: Toward a Minimal Number of Sensors.. *Frontiers in Human Neuroscience*, **2021**, 15, 734501	3.3	0
110	Maximum Entropy Method. *Encyclopedia of Earth Sciences Series*, **2021**, 1-4	0	
109	Spatiotemporal geostatistical analysis of precipitation combining ground and satellite observations **2021**, 52, 804-820		4
108	Recurrent neural network-based acute concussion classifier using raw resting state EEG data. *Scientific Reports*, **2021**, 11, 12353	4.9	4
107	Exploring the use of Unmanned Aerial Vehicles (UAVs) with the simplified triangle technique for soil water content and evaporative fraction retrievals in a Mediterranean setting. *International Journal of Remote Sensing*, **2021**, 42, 1623-1642	3.1	8
106	Modelling key parameters characterising land surface using the SimSphere SVAT model **2021**, 409-442		
105	A preliminary evaluation of the simplified triangle with Sentinel-3 images for mapping surface soil moisture and evaporative fluxes: results obtained in a Spanish savannah environment **2021**, 209-223		
104	Geo-informatics for optimal design of desalination plants using renewable energy sources: the DES2iRES platform paradigm. *Arabian Journal of Geosciences*, **2020**, 13, 1	1.8	0
103	Stochastic local interaction model with sparse precision matrix for space time interpolation. *Spatial Statistics*, **2020**, 40, 100403	2.2	7
102	Estimation of the uncertainty of hydrologic predictions in a karstic Mediterranean watershed. *Science of the Total Environment*, **2020**, 717, 137131	10.2	13
101	Random Fields for Spatial Data Modeling. *Advances in Geographic Information Science*, **2020**,	0.3	26
100	Effective probability distribution approximation for the reconstruction of missing data. *Stochastic Environmental Research and Risk Assessment*, **2020**, 34, 235-249	3.5	1
99	More on Estimation. *Advances in Geographic Information Science*, **2020**, 551-589	0.3	
98	More on Spatial Prediction. *Advances in Geographic Information Science*, **2020**, 485-515	0.3	
97	Trend Models and Estimation. *Advances in Geographic Information Science*, **2020**, 41-81	0.3	

96	Lattice Representations of Spartan Random Fields. *Advances in Geographic Information Science*, **2020**, 365-392	0.3	
95	Random Fields Based on Local Interactions. *Advances in Geographic Information Science*, **2020**, 309-363	0.3	
94	Basic Notions of Random Fields. *Advances in Geographic Information Science*, **2020**, 83-125	0.3	
93	Gaussian Random Fields. *Advances in Geographic Information Science*, **2020**, 245-307	0.3	1
92	Beyond the Gaussian Models. *Advances in Geographic Information Science*, **2020**, 591-643	0.3	
91	Basic Concepts and Methods of Estimation. *Advances in Geographic Information Science*, **2020**, 517-550	0.3	
90	Spatial Prediction Fundamentals. *Advances in Geographic Information Science*, **2020**, 433-484	0.3	
89	Binary Random Fields. *Advances in Geographic Information Science*, **2020**, 645-688	0.3	
88	Additional Topics of Random Field Modeling. *Advances in Geographic Information Science*, **2020**, 127-171	0.3	
87	Spartan Random Fields and Langevin Equations. *Advances in Geographic Information Science*, **2020**, 393-432	0.3	
86	Simulations. *Advances in Geographic Information Science*, **2020**, 689-784	0.3	
85	Geometric Properties of Random Fields. *Advances in Geographic Information Science*, **2020**, 173-244	0.3	2
84	GPU-Accelerated Simulation of Massive Spatial Data Based on the Modified Planar Rotator Model. *Mathematical Geosciences*, **2020**, 52, 123-143	2.5	2
83	Evaporative Fluxes and Surface Soil Moisture Retrievals in a Mediterranean Setting from Sentinel-3 and the Simplified Triangle. *Remote Sensing*, **2020**, 12, 3192	5	7
82	Retrievals of key biophysical parameters at mesoscale from the Ts/VI scatterplot domain. *Geocarto International*, **2020**, 1-21	2.7	1
81	The statistics approach to epidemiology. *Scientific Reports*, **2020**, 10, 19949	4.9	15
80	Efficient and Scalable Approach to Equilibrium Conditional Simulation of Gibbs Markov Random Fields. *EPJ Web of Conferences*, **2020**, 226, 02023	0.3	0
79	Geostatistical analysis of precipitation in the island of Crete (Greece) based on a sparse monitoring network. *Environmental Monitoring and Assessment*, **2019**, 191, 353	3.1	17

78	Operational Soil Moisture from ASCAT in Support of Water Resources Management. *Remote Sensing*, **2019**, 11, 579	5	11
77	Geo-Informatics for Optimal Design of Desalination Plants Using Renewable Energy Sources: The DESiRES Platform Paradigm. *Advances in Science, Technology and Innovation*, **2019**, 53-55	0.3	
76	Mathematical Modelling of Formation and Dissociation of Gas Hydrate in the Sea Floor Sediment **2019**, 402-405		
75	Disrupted Information Flow in Resting-State in Adolescents With Sports Related Concussion. *Frontiers in Human Neuroscience*, **2019**, 13, 419	3.3	9
74	Comparison of spatiotemporal variogram functions based on a sparse dataset of groundwater level variations. *Spatial Statistics*, **2019**, 34, 100245	2.2	21
73	Nonlinear Kinetics on Lattices Based on the Kinetic Interaction Principle. *Entropy*, **2018**, 20,	2.8	3
72	Gibbs Markov random fields with continuous values based on the modified planar rotator model. *Physical Review E*, **2018**, 98,	2.4	4
71	Non-parametric approximations for anisotropy estimation in two-dimensional differentiable Gaussian random fields. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 1853-1870	3.5	4
70	Space□time covariance functions based on linear response theory and the turning bands method. *Spatial Statistics*, **2017**, 22, 321-337	2.2	6
69	Karhunen□Loᵥe expansion of Spartan spatial random fields. *Probabilistic Engineering Mechanics*, **2016**, 43, 132-147	2.6	7
68	Numerical simulation of a coupled nonlinear model for grain coarsening and coalescence. *Simulation Modelling Practice and Theory*, **2016**, 62, 102-116	3.9	0
67	Kinetic model of mass exchange with dynamic Arrhenius transition rates. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 444, 95-109	3.3	3
66	Stochastic Modeling of Aquifer Level Temporal Fluctuations Based on the Conceptual Basis of the Soil-Water Balance Equation. *Soil Science*, **2016**, 181, 224-231	0.9	4
65	Space-time models based on random fields with local interactions. *International Journal of Modern Physics B*, **2016**, 30, 1541007	1.1	3
64	Detection of small-scale rockfall incidents using their seismic signature **2015**,		4
63	Weakest-Link Scaling and Extreme Events in Finite-Sized Systems. *Entropy*, **2015**, 17, 1103-1122	2.8	9
62	Covariance functions motivated by spatial random field models with local interactions. *Stochastic Environmental Research and Risk Assessment*, **2015**, 29, 739-754	3.5	15
61	Numerical Investigation of Grain Coarsening and Coalescence Model. *Journal of Physics: Conference Series*, **2015**, 574, 012160	0.3	

60	Short-range correlations in modified planar rotator model. *Journal of Physics: Conference Series*, **2015**, 633, 012105	0.3	1
59	Stochastic Local Interaction (SLI) model: Bridging machine learning and geostatistics. *Computers and Geosciences*, **2015**, 85, 26-37	4.5	23
58	Spatial modeling of lignite energy reserves for exploitation planning and quality control. *Energy*, **2015**, 93, 1906-1917	7.9	5
57	Finite-size effects on return interval distributions for weakest-link-scaling systems. *Physical Review E*, **2014**, 89, 052142	2.4	15
56	Multivariate Spartan spatial random field models. *Probabilistic Engineering Mechanics*, **2014**, 37, 84-92	2.6	9
55	Normal faulting in the forearc of the Hellenic subduction margin: Paleoearthquake history and kinematics of the Spili Fault, Crete, Greece. *Journal of Structural Geology*, **2014**, 66, 298-308	3	18
54	Reconstruction of missing data in remote sensing images using conditional stochastic optimization with global geometric constraints. *Stochastic Environmental Research and Risk Assessment*, **2013**, 27, 785-806	3.5	10
53	Improvement of groundwater level prediction in sparsely gauged basins using physical laws and local geographic features as auxiliary variables. *Advances in Water Resources*, **2013**, 52, 34-49	4.7	45
52	A Directional Gradient-Curvature method for gap filling of gridded environmental spatial data with potentially anisotropic correlations. *Atmospheric Environment*, **2013**, 77, 901-909	5.3	7
51	Comparison of stochastic and deterministic methods for mapping groundwater level spatial variability in sparsely monitored basins. *Environmental Monitoring and Assessment*, **2013**, 185, 1-19	3.1	87
50	Strength statistics and the distribution of earthquake interevent times. *Physica A: Statistical Mechanics and Its Applications*, **2013**, 392, 485-496	3.3	10
49	The importance of microearthquakes in crustal extension of an active rift: A case study from New Zealand. *Journal of Geophysical Research: Solid Earth*, **2013**, 118, 1556-1568	3.6	4
48	Fault-slip accumulation in an active rift over thousands to millions of years and the importance of paleoearthquake sampling. *Journal of Structural Geology*, **2012**, 36, 71-80	3	30
47	Improving kriging of groundwater level data using nonlinear normalizing transformations— field application. *Hydrological Sciences Journal*, **2012**, 57, 1404-1419	3.5	32
46	Patterns of tectonic fault interactions captured through geostatistical analysis of microearthquakes. *Journal of Geophysical Research*, **2011**, 116,		10
45	INTAMAP: The design and implementation of an interoperable automated interpolation web service. *Computers and Geosciences*, **2011**, 37, 343-352	4.5	45
44	Introduction to this special issue on geoinformatics for environmental surveillance. *Computers and Geosciences*, **2011**, 37, 277-279	4.5	9
43	A multigrid method for the estimation of geometric anisotropy in environmental data from sensor networks. *Computers and Geosciences*, **2011**, 37, 320-330	4.5	9

42	Relationships between correlation lengths and integral scales for covariance models with more than two parameters. *Stochastic Environmental Research and Risk Assessment*, **2011**, 25, 11-19	3.5	24
41	Estimating tree abundance from remotely sensed imagery in semi-arid and arid environments: bringing small trees to the light. *Stochastic Environmental Research and Risk Assessment*, **2009**, 23, 111-118	3.5	5
40	Computationally Efficient Spatial Interpolators Based on Spartan Spatial Random Fields. *IEEE Transactions on Signal Processing*, **2009**, 57, 3475-3487	4.8	25
39	Classification of missing values in spatial data using spin models. *Physical Review E*, **2009**, 80, 011116	2.4	8
38	The Method of Normalized Correlations: A Fast Parameter Estimation Method for Random Processes and Isotropic Random Fields That Focuses on Short-Range Dependence. *Technometrics*, **2009**, 51, 173-185	1.4	10
37	Multilevel discretized random field models with 'spin' correlations for the simulation of environmental spatial data. *Journal of Statistical Mechanics: Theory and Experiment*, **2009**, 2009, P02023	1.9	3
36	Spartan Random Fields: Smoothness Properties of Gaussian Densities and Definition of Certain Non-Gaussian Models **2009**, 17-27		
35	Environmental time series interpolation based on Spartan random processes. *Atmospheric Environment*, **2008**, 42, 7669-7678	5.3	13
34	Nonparametric Identification of Anisotropic (Elliptic) Correlations in Spatially Distributed Data Sets. *IEEE Transactions on Signal Processing*, **2008**, 56, 4738-4751	4.8	31
33	An application of Spartan spatial random fields in environmental mapping: focus on automatic mapping capabilities. *Stochastic Environmental Research and Risk Assessment*, **2008**, 22, 633-646	3.5	36
32	Spartan random processes in time series modeling. *Physica A: Statistical Mechanics and Its Applications*, **2008**, 387, 3995-4001	3.3	5
31	A semi-analytical equation for the Young's modulus of isotropic ceramic materials. *Journal of the European Ceramic Society*, **2008**, 28, 1111-1120	6	9
30	. *IEEE Transactions on Information Theory*, **2007**, 53, 4667-4679	2.8	44
29	Using GPS for monitoring tall-building response to wind loading: filtering of abrupt changes and low-frequency noise, variography and spectral analysis of displacements. *GPS Solutions*, **2007**, 11, 85-95	4.4	18
28	Spartan gaussian random fields for geostatistical applications: Non-constrained simulations on square lattices and irregular grids. *Journal of Computational Methods in Sciences and Engineering*, **2006**, 5, 149-164	0.3	
27	Spatial random field models inspired from statistical physics with applications in the geosciences. *Physica A: Statistical Mechanics and Its Applications*, **2006**, 365, 211-216	3.3	6
26	A discrete nonlinear mass transfer equation with applications in solid-state sintering of ceramic materials. *European Physical Journal B*, **2006**, 50, 83-87	1.2	5
25	Approximate methods for explicit calculations of non-Gaussian moments. *Stochastic Environmental Research and Risk Assessment*, **2006**, 20, 278-290	3.5	11

24	Structural disorder effects on the tensile strength distribution of heterogeneous brittle materials with emphasis on fiber networks. *Physical Review B*, **2004**, 70,	3.3	20
23	Methods for generating non-separable spatiotemporal covariance models with potential environmental applications. *Advances in Water Resources*, **2004**, 27, 815-830	4.7	99
22	Renormalization group methods in subsurface hydrology: overview and applications in hydraulic conductivity upscaling. *Advances in Water Resources*, **2003**, 26, 1279-1308	4.7	32
21	Spartan Gibbs Random Field Models for Geostatistical Applications. *SIAM Journal of Scientific Computing*, **2003**, 24, 2125-2162	2.6	59
20	Permissibility of fractal exponents and models of band-limited two-point functions for fGn and fBm random fields. *Stochastic Environmental Research and Risk Assessment*, **2003**, 17, 191-216	3.5	13
19	SIMULATIONS OF SPARTAN RANDOM FIELDS **2003**,		2
18	Practical Calculation of Non-Gaussian Multivariate Moments in Spatiotemporal Bayesian Maximum Entropy Analysis. *Mathematical Geosciences*, **2001**, 33, 543-568		21
17	On the physical geometry concept at the basis of space/time geostatistical hydrology. *Advances in Water Resources*, **2000**, 23, 799-810	4.7	23
16	Stochastic Flowpath Analysis of Multiphase Flow in Random Porous Media. *SIAM Journal on Applied Mathematics*, **2000**, 60, 1520-1542	1.8	3
15	Numerical Implementation of a Space-Transformation Approach for Solving the Three-Dimensional Flow Equation. *SIAM Journal of Scientific Computing*, **1998**, 20, 619-647	2.6	2
14	Multiphase flow in heterogeneous porous media from a stochastic differential geometry viewpoint. *Water Resources Research*, **1998**, 34, 93-102	5.4	8
13	Spatiotemporal Environmental Health Modelling: A Tractatus Stochasticus **1998**,		59
12	Stochastic indicator analysis of contaminated sites. *Journal of Applied Probability*, **1997**, 34, 988-1008	0.8	12
11	Variational calculation of the effective fluid permeability of heterogeneous media. *Physical Review E*, **1997**, 55, 7288-7298	2.4	25
10	Stochastic Radon operators in porous media hydrodynamics. *Quarterly of Applied Mathematics*, **1997**, 55, 89-112	0.7	6
9	Diagrammatic theory of effective hydraulic conductivity. *Stochastic Hydrology & Hydraulics*, **1997**, 11, 369-395		9
8	An analysis of hydraulic conductivity upscaling. *Nonlinear Analysis: Theory, Methods & Applications*, **1997**, 30, 4979-4984	1.3	9
7	Stochastic Indicators for Waste Site Characterization. *Water Resources Research*, **1996**, 32, 2563-2578	5.4	12

6	Characterization of atmospheric pollution by means of stochastic indicator parameters. *Atmospheric Environment*, **1996**, 30, 3811-3823	5.3	12
5	Stochastic Diagrammatic Analysis of Groundwater Flow in Heterogeneous Porous Media. *Water Resources Research*, **1995**, 31, 1687-1703	5.4	24
4	Stochastic space transforms in subsurface hydrology Part 2: Generalized spectral decompositions and plancherel representations. *Stochastic Hydrology & Hydraulics*, **1994**, 8, 117-138		4
3	Resting-state directed brain connectivity patterns in adolescents from source-reconstructed EEG signals based on information flow rate		3
2	Disrupted information flow in resting-state in adolescents with sports related concussion		1
1	Stochastic Local Interaction Model: An Alternative to Kriging for Massive Datasets. *Mathematical Geosciences*,1	2.5	1