

Marc L Serre

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

11,175
citations

117625

34
h-index

32842

100
g-index

110
all docs

110
docs citations

110
times ranked

14869
citing authors

#	ARTICLE	IF	CITATIONS
1	Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. <i>Lancet, The</i> , 2020, 396, 1223-1249.	13.7	3,928
2	Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. <i>Lancet, The</i> , 2018, 392, 1923-1994.	13.7	3,269
3	Particulate air pollutants, APOE alleles and their contributions to cognitive impairment in older women and to amyloidogenesis in experimental models. <i>Translational Psychiatry</i> , 2017, 7, e1022-e1022.	4.8	298
4	Ambient air pollution and neurotoxicity on brain structure: Evidence from women's health initiative memory study. <i>Annals of Neurology</i> , 2015, 78, 466-476.	5.3	193
5	A Hybrid Approach to Estimating National Scale Spatiotemporal Variability of PM _{2.5} in the Contiguous United States. <i>Environmental Science & Technology</i> , 2013, 47, 7233-7241.	10.0	188
6	Particulate Matter Exposure, Prenatal and Postnatal Windows of Susceptibility, and Autism Spectrum Disorders. <i>Epidemiology</i> , 2015, 26, 30-42.	2.7	158
7	Particulate matter and episodic memory decline mediated by early neuroanatomic biomarkers of Alzheimer's disease. <i>Brain</i> , 2020, 143, 289-302.	7.6	126
8	Methods for generating non-separable spatiotemporal covariance models with potential environmental applications. <i>Advances in Water Resources</i> , 2004, 27, 815-830.	3.8	119
9	BME analysis of spatiotemporal particulate matter distributions in North Carolina. <i>Atmospheric Environment</i> , 2000, 34, 3393-3406.	4.1	116
10	Comparing the Health Effects of Ambient Particulate Matter Estimated Using Ground-Based versus Remote Sensing Exposure Estimates. <i>Environmental Health Perspectives</i> , 2017, 125, 552-559.	6.0	107
11	Fecal Indicators in Sand, Sand Contact, and Risk of Enteric Illness Among Beachgoers. <i>Epidemiology</i> , 2012, 23, 95-106.	2.7	100
12	Mapping Health Data: Improved Privacy Protection With Donut Method Geomasking. <i>American Journal of Epidemiology</i> , 2010, 172, 1062-1069.	3.4	96
13	A Voxel-Based Morphometry Study Reveals Local Brain Structural Alterations Associated with Ambient Fine Particles in Older Women. <i>Frontiers in Human Neuroscience</i> , 2016, 10, 495.	2.0	87
14	Comparison of Geostatistical Interpolation and Remote Sensing Techniques for Estimating Long-Term Exposure to Ambient PM _{2.5} Concentrations across the Continental United States. <i>Environmental Health Perspectives</i> , 2012, 120, 1727-1732.	6.0	85
15	Spatial analysis and mapping of sexually transmitted diseases to optimise intervention and prevention strategies. <i>Sexually Transmitted Infections</i> , 2004, 80, 294-299.	1.9	83
16	Fecal Contamination of Shallow Tubewells in Bangladesh Inversely Related to Arsenic. <i>Environmental Science & Technology</i> , 2011, 45, 1199-1205.	10.0	74
17	Arsenic in North Carolina: Public Health Implications. <i>Environment International</i> , 2012, 38, 10-16.	10.0	70
18	Bayesian Maximum Entropy Integration of Ozone Observations and Model Predictions: An Application for Attainment Demonstration in North Carolina. <i>Environmental Science & Technology</i> , 2010, 44, 5707-5713.	10.0	64

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19	Burden of disease attributed to anthropogenic air pollution in the United Arab Emirates: Estimates based on observed air quality data. <i>Science of the Total Environment</i> , 2010, 408, 5784-5793.	8.0	61
20	Calibration/Validation of an Altimeter Wave Period Model and Application to TOPEX/Poseidon and Jason-1 Altimeters. <i>Marine Geodesy</i> , 2004, 27, 535-549.	2.0	59
21	Geomasking sensitive health data and privacy protection: an evaluation using an E911 database. <i>Geocarto International</i> , 2010, 25, 443-452.	3.5	58
22	An LUR/BME Framework to Estimate PM _{2.5} Explained by on Road Mobile and Stationary Sources. <i>Environmental Science & Technology</i> , 2014, 48, 1736-1744.	10.0	58
23	Modeling a Syphilis Outbreak Through Space and Time Using the Bayesian Maximum Entropy Approach. <i>Annals of Epidemiology</i> , 2006, 16, 797-804.	1.9	53
24	Space-time mapping of soil salinity using probabilistic bayesian maximum entropy. <i>Stochastic Environmental Research and Risk Assessment</i> , 2004, 18, 219.	4.0	52
25	Total ozone mapping by integrating databases from remote sensing instruments and empirical models. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2004, 42, 991-1008.	6.3	51
26	BME representation of particulate matter distributions in the state of California on the basis of uncertain measurements. <i>Journal of Geophysical Research</i> , 2001, 106, 9717-9731.	3.3	48
27	Computational Bayesian maximum entropy solution of a stochastic advection-reaction equation in the light of site-specific information. <i>Water Resources Research</i> , 2002, 38, 54-1-54-17.	4.2	48
28	Modern Space/Time Geostatistics Using River Distances: Data Integration of Turbidity and <i>E. coli</i> Measurements to Assess Fecal Contamination Along the Raritan River in New Jersey. <i>Environmental Science & Technology</i> , 2009, 43, 3736-3742.	10.0	47
29	Mapping Yearly Fine Resolution Global Surface Ozone through the Bayesian Maximum Entropy Data Fusion of Observations and Model Output for 1990–2017. <i>Environmental Science & Technology</i> , 2021, 55, 4389-4398.	10.0	47
30	Examination of atmospheric ammonia levels near hog CAFOs, homes, and schools in Eastern North Carolina. <i>Atmospheric Environment</i> , 2007, 41, 4977-4987.	4.1	46
31	Unsealed tubewells lead to increased fecal contamination of drinking water. <i>Journal of Water and Health</i> , 2012, 10, 565-578.	2.6	43
32	Space/Time Analysis of Fecal Pollution and Rainfall in an Eastern North Carolina Estuary. <i>Environmental Science & Technology</i> , 2009, 43, 3728-3735.	10.0	40
33	Large Scale Air Pollution Estimation Method Combining Land Use Regression and Chemical Transport Modeling in a Geostatistical Framework. <i>Environmental Science & Technology</i> , 2014, 48, 4452-4459.	10.0	39
34	Estimates of ozone concentrations and attributable mortality in urban, peri-urban and rural areas worldwide in 2019. <i>Environmental Research Letters</i> , 2022, 17, 054023.	5.2	38
35	Nitrate Variability in Groundwater of North Carolina using Monitoring and Private Well Data Models. <i>Environmental Science & Technology</i> , 2014, 48, 10804-10812.	10.0	37
36	Spatiotemporal analysis of environmental exposure–health effect associations. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2000, 10, 168-187.	3.9	35

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37	Bayesian Maximum Entropy Integration of Ozone Observations and Model Predictions: A National Application. <i>Environmental Science & Technology</i> , 2016, 50, 4393-4400.	10.0	34
38	Spatiotemporal Nonattainment Assessment of Surface Water Tetrachloroethylene in New Jersey. <i>Journal of Environmental Quality</i> , 2007, 36, 508-520.	2.0	33
39	Are Neighborhood Sociocultural Factors Influencing the Spatial Pattern of Gonorrhea in North Carolina?. <i>Annals of Epidemiology</i> , 2011, 21, 245-252.	1.9	32
40	Efficacy of Hollow-Fiber Ultrafiltration for Microbial Sampling in Groundwater. <i>Ground Water</i> , 2011, 49, 53-65.	1.3	32
41	Integrating Address Geocoding, Land Use Regression, and Spatiotemporal Geostatistical Estimation for Groundwater Tetrachloroethylene. <i>Environmental Science & Technology</i> , 2012, 46, 2772-2780.	10.0	32
42	BME-based uncertainty assessment of the Chernobyl fallout. <i>Geoderma</i> , 2005, 128, 312-324.	5.1	31
43	Exposure to fine particulate matter and temporal dynamics of episodic memory and depressive symptoms in older women. <i>Environment International</i> , 2020, 135, 105196.	10.0	31
44	Short-Term Exposure to Wildfire Smoke and PM _{2.5} and Cognitive Performance in a Brain-Training Game: A Longitudinal Study of U.S. Adults. <i>Environmental Health Perspectives</i> , 2022, 130, .	6.0	31
45	Energy Loss at Combining Pipe Junction. <i>Journal of Hydraulic Engineering</i> , 1994, 120, 808-830.	1.5	30
46	Increase in Diarrheal Disease Associated with Arsenic Mitigation in Bangladesh. <i>PLoS ONE</i> , 2011, 6, e29593.	2.5	30
47	The moving-window Bayesian maximum entropy framework: estimation of PM _{2.5} yearly average concentration across the contiguous United States. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2012, 22, 496-501.	3.9	29
48	Estimating Wildfire Smoke Concentrations during the October 2017 California Fires through BME Space/Time Data Fusion of Observed, Modeled, and Satellite-Derived PM _{2.5} . <i>Environmental Science & Technology</i> , 2020, 54, 13439-13447.	10.0	29
49	A BME solution of the inverse problem for saturated groundwater flow. <i>Stochastic Environmental Research and Risk Assessment</i> , 2003, 17, 354-369.	4.0	28
50	Use of passive samplers to measure atmospheric ammonia levels in a high-density industrial hog farm area of eastern North Carolina. <i>Atmospheric Environment</i> , 2007, 41, 6074-6086.	4.1	27
51	Modeling the space/time distribution of particulate matter in Thailand and optimizing its monitoring network. <i>Atmospheric Environment</i> , 2007, 41, 7788-7805.	4.1	27
52	Spatiotemporal Approaches to Analyzing Pedestrian Fatalities: The Case of Cali, Colombia. <i>Traffic Injury Prevention</i> , 2015, 16, 571-577.	1.4	25
53	Lung and stomach cancer associations with groundwater radon in North Carolina, USA. <i>International Journal of Epidemiology</i> , 2016, 46, dyw128.	1.9	25
54	Using river distances in the space/time estimation of dissolved oxygen along two impaired river networks in New Jersey. <i>Water Research</i> , 2009, 43, 1948-1958.	11.3	24

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55	Efficient mapping of California mortality fields at different spatial scales. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2003, 13, 120-133.	3.9	23
56	A Method for Estimating Urban Background Concentrations in Support of Hybrid Air Pollution Modeling for Environmental Health Studies. <i>International Journal of Environmental Research and Public Health</i> , 2014, 11, 10518-10536.	2.6	23
57	Estimation of Groundwater Radon in North Carolina Using Land Use Regression and Bayesian Maximum Entropy. <i>Environmental Science & Technology</i> , 2015, 49, 9817-9825.	10.0	23
58	Regionalized PM _{2.5} Community Multiscale Air Quality model performance evaluation across a continuous spatiotemporal domain. <i>Atmospheric Environment</i> , 2017, 148, 258-265.	4.1	23
59	A new method (M<sup>3</sup>Fusion v1) for combining observations and multiple model output for an improved estimate of the global surface ozone distribution. <i>Geoscientific Model Development</i> , 2019, 12, 955-978.	3.6	23
60	A Bayesian Maximum Entropy approach to address the change of support problem in the spatial analysis of childhood asthma prevalence across North Carolina. <i>Spatial and Spatio-temporal Epidemiology</i> , 2009, 1, 49-60.	1.7	22
61	Water quality, weather and environmental factors associated with fecal indicator organism density in beach sand at two recreational marine beaches. <i>Science of the Total Environment</i> , 2014, 497-498, 440-447.	8.0	22
62	Cost-effective water quality assessment through the integration of monitoring data and modeling results. <i>Water Resources Research</i> , 2007, 43, .	4.2	21
63	Sexual Networks, Surveillance, and Geographical Space During Syphilis Outbreaks in Rural North Carolina. <i>Epidemiology</i> , 2012, 23, 845-851.	2.7	21
64	Bayesian Maximum Entropy space/time estimation of surface water chloride in Maryland using river distances. <i>Environmental Pollution</i> , 2016, 219, 1148-1155.	7.5	21
65	Geostatistical Prediction of Microbial Water Quality Throughout a Stream Network Using Meteorology, Land Cover, and Spatiotemporal Autocorrelation. <i>Environmental Science & Technology</i> , 2018, 52, 7775-7784.	10.0	20
66	Comparison of Sexual Mixing Patterns for Syphilis in Endemic and Outbreak Settings. <i>Sexually Transmitted Diseases</i> , 2011, 38, 378-384.	1.7	19
67	PM _{2.5} Associated With Gray Matter Atrophy Reflecting Increased Alzheimer Risk in Older Women. <i>Neurology</i> , 2021, 96, .	1.1	19
68	Racial/Ethnic Disparities in Alzheimer's Disease Risk: Role of Exposure to Ambient Fine Particles. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2022, 77, 977-985.	3.6	19
69	Impact of tubewell access and tubewell depth on childhood diarrhea in Matlab, Bangladesh. <i>Environmental Health</i> , 2011, 10, 109.	4.0	17
70	Adjusting for sampling variability in sparse data: geostatistical approaches to disease mapping. <i>International Journal of Health Geographics</i> , 2011, 10, 54.	2.5	17
71	Estimating the Acute Health Impacts of Fire-Origined PM _{2.5} Exposure During the 2017 California Wildfires: Sensitivity to Choices of Inputs. <i>GeoHealth</i> , 2021, 5, e2021GH000414.	4.0	17
72	Mass fraction spatiotemporal geostatistics and its application to map atmospheric polycyclic aromatic hydrocarbons after 9/11. <i>Stochastic Environmental Research and Risk Assessment</i> , 2009, 23, 1213-1223.	4.0	16

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73	Particulate Air Pollutants and Trajectories of Depressive Symptoms in Older Women. <i>American Journal of Geriatric Psychiatry</i> , 2019, 27, 1083-1096.	1.2	16
74	Erythrocyte omega-3 index, ambient fine particle exposure, and brain aging. <i>Neurology</i> , 2020, 95, e995-e1007.	1.1	15
75	Does Core Area Theory Apply to Sexually Transmitted Diseases in Rural Environments?. <i>Sexually Transmitted Diseases</i> , 2013, 40, 32-40.	1.7	14
76	Adherence to a MIND-Like Dietary Pattern, Long-Term Exposure to Fine Particulate Matter Air Pollution, and MRI-Based Measures of Brain Volume: The Women's Health Initiative Memory Study-MRI. <i>Environmental Health Perspectives</i> , 2021, 129, 127008.	6.0	14
77	Non-point source evaluation of groundwater nitrate contamination from agriculture under geologic uncertainty. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 939-956.	4.0	13
78	A novel geostatistical approach combining Euclidean and gradual-flow covariance models to estimate fecal coliform along the Haw and Deep rivers in North Carolina. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018, 32, 2537-2549.	4.0	11
79	Using River Distance and Existing Hydrography Data Can Improve the Geostatistical Estimation of Fish Tissue Mercury at Unsampled Locations. <i>Environmental Science & Technology</i> , 2011, 45, 7746-7753.	10.0	10
80	Effects of Geographic Diversification on Risk Pooling to Mitigate Drought-Related Financial Losses for Water Utilities. <i>Water Resources Research</i> , 2018, 54, 2561-2579.	4.2	10
81	Characterizing Differences in Sources of and Contributions to Fecal Contamination of Sediment and Surface Water with the Microbial FIT Framework. <i>Environmental Science & Technology</i> , 2022, 56, 4231-4240.	10.0	10
82	Impact of temporal upscaling and chemical transport model horizontal resolution on reducing ozone exposure misclassification. <i>Atmospheric Environment</i> , 2017, 166, 374-382.	4.1	9
83	Influence of Detection Method and Study Area Scale on Syphilis Cluster Identification in North Carolina. <i>Sexually Transmitted Diseases</i> , 2016, 43, 216-221.	1.7	8
84	Distance to testing sites and its association with timing of HIV diagnosis [*] . <i>AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV</i> , 2016, 28, 1423-1427.	1.2	7
85	Blending Multiple Nitrogen Dioxide Data Sources for Neighborhood Estimates of Long-Term Exposure for Health Research. <i>Environmental Science & Technology</i> , 2017, 51, 12473-12480.	10.0	7
86	Geostatistical space/time estimation of water quality along the Raritan River Basin in New Jersey. <i>Developments in Water Science</i> , 2004, 55, 1839-1852.	0.1	6
87	Finely Resolved On-Road PM _{2.5} and Estimated Premature Mortality in Central North Carolina. <i>Risk Analysis</i> , 2017, 37, 2420-2434.	2.7	6
88	Predicting polycyclic aromatic hydrocarbons using a mass fraction approach in a geostatistical framework across North Carolina. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2018, 28, 381-391.	3.9	6
89	Combining Dispersion Modeling and Monitoring Data for Community-Scale Air Quality Characterization. <i>Atmosphere</i> , 2019, 10, 610.	2.3	6
90	Microbial Find, Inform, and Test Model for Identifying Spatially Distributed Contamination Sources: Framework Foundation and Demonstration of Ruminant Bacteroides Abundance in River Sediments. <i>Environmental Science & Technology</i> , 2021, 55, 10451-10461.	10.0	6

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91	B vitamin intakes modify the association between particulate air pollutants and incidence of all-cause dementia: Findings from the Women's Health Initiative Memory Study. <i>Alzheimer's and Dementia</i> , 2022, 18, 2188-2198.	0.8	6
92	Powering an Egyptian Air Quality Information System with the Bayesian Maximum Entropy Space/Time Analysis Toolbox: Results From the Cairo Baseline Year Study. <i>Quantitative Geology and Geostatistics</i> , 2001, , 91-100.	0.1	5
93	Using Animations of Risk Functions to Visualize Trends in US All-Cause and Cause-Specific Mortality, 1968-2016. <i>American Journal of Public Health</i> , 2019, 109, 451-453.	2.7	4
94	Improving emissions inputs via mobile measurements to estimate fine-scale Black Carbon monthly concentrations through geostatistical space-time data fusion. <i>Science of the Total Environment</i> , 2021, 793, 148378.	8.0	4
95	Numerical Implementation of a Space-Transformation Approach for Solving the Three-Dimensional Flow Equation. <i>SIAM Journal of Scientific Computing</i> , 1998, 20, 619-647.	2.8	3
96	Integrating remote sensing with nutrient management plans to calculate nitrogen parameters for swine CAFOs at the sprayfield and sub-watershed scales. <i>Science of the Total Environment</i> , 2017, 580, 865-872.	8.0	3
97	Integrating Community Science Research and Space-Time Mapping to Determine Depth to Groundwater in a Remote Rural Region. <i>Water Resources Research</i> , 2021, 57, e2020WR029519.	4.2	3
98	Spatialization of saturated hydraulic conductivity using the Bayesian Maximum Entropy method: Application to wastewater infiltration areas. <i>Water Research</i> , 2021, 204, 117607.	11.3	3
99	Particulate Air Pollutants, Brain Structure, and Neurocognitive Disorders in Older Women. <i>Research Report (health Effects Institute)</i> , 2017, , 1-65.	1.6	2
100	Using remote sensing to calculate plant available nitrogen needed by crops on swine factory farm sprayfields in North Carolina. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
101	Non-Point Source Evaluation of Groundwater Contamination from Agriculture under Geologic and Hydrologic Uncertainty. , 2016, , .		1
102	Estimating associations between annual concentrations of particulate matter and mortality in the US, using data linkage and Bayesian Maximum Entropy. <i>Epidemiology</i> , 2021, Publish Ahead of Print, .	2.7	1
103	Examining the Relationship Between Wet Weather and Fecal Contamination in a North Carolina Estuary. <i>Proceedings of the Water Environment Federation</i> , 2007, 2007, 1019-1031.	0.0	0
104	Risk Assessment: COPD Mortality Burden due to Ozone Exposure in Europe. <i>ISEE Conference Abstracts</i> , 2021, 2021, .	0.0	0
105	A Space/Time Data Fusion Method for Accurately Estimating Wildfire Smoke Concentrations During the October 2017 California Fires to Inform Population-Level Exposure. <i>ISEE Conference Abstracts</i> , 2020, 2020, .	0.0	0