Robert C Spear

List of Publications by Year
in descending order

105 papers	3,647 citations	109264 35 h-index	149623 56 g-index
107 all docs	107 docs citations	107 times ranked	2329 citing authors

#	Article	IF	Citations
1	Eutrophication in peel inletâ€"II. Identification of critical uncertainties via generalized sensitivity analysis. Water Research, 1980, 14, 43-49.	5.3	525
2	Eutrophication in peel inletâ€"I. The problem-defining behavior and a mathematical model for the phosphorus scenario. Water Research, 1980, 14, 29-42.	5.3	149
3	Integrating Uncertainty and Interindividual Variability in Environmental Risk Assessment. Risk Analysis, 1987, 7, 427-436.	1.5	142
4	Parameter uncertainty and interaction in complex environmental models. Water Resources Research, 1994, 30, 3159-3169.	1.7	135
5	Environmental effects on parasitic disease transmission exemplified by schistosomiasis in western China. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7110-7115.	3.3	108
6	Worker reentry into pesticide-treated crops. I. Procedure for the determination of dislodgable pesticide residues on foliage. Bulletin of Environmental Contamination and Toxicology, 1977, 18, 649-655.	1.3	96
7	A matched, caseâ€"control study of the association betweenSchistosoma japonicumand liver and colon cancers, in rural China. Annals of Tropical Medicine and Parasitology, 2005, 99, 47-52.	1.6	81
8	FACTORS INFLUENCING THE TRANSMISSION OF SCHISTOSOMA JAPONICUM IN THE MOUNTAINS OF SICHUAN PROVINCE OF CHINA. American Journal of Tropical Medicine and Hygiene, 2004, 70, 48-56.	0.6	81
9	Quantifying Water Pathogen Risk in an Epidemiological Framework. Risk Analysis, 1996, 16, 549-563.	1.5	74
10	Disease transmission models for public health decision making: toward an approach for designing intervention strategies for Schistosomiasis japonica.. Environmental Health Perspectives, 2002, 110, 907-915.	2.8	74
11	Climate and the Timing of Imported Cases as Determinants of the Dengue Outbreak in Guangzhou, 2014: Evidence from a Mathematical Model. PLoS Neglected Tropical Diseases, 2016, 10, e0004417.	1.3	72
12	Geographic and ecologic heterogeneity in elimination thresholds for the major vector-borne helminthic disease, lymphatic filariasis. BMC Biology, 2010, 8, 22.	1.7	67
13	A Video Imaging Technique for Assessing Dermal Exposure II. Fluorescent Tracer Testing. AIHA Journal, 1986, 47, 771-775.	0.4	65
14	A quantitative framework for a multi-group model of Schistosomiasis japonicum transmission dynamics and control in Sichuan, China. Acta Tropica, 2002, 82, 263-277.	0.9	65
15	Modeling Benzene Pharmacokinetics Across Three Sets of Animal Data: Parametric Sensitivity and Risk Implications. Risk Analysis, 1991, 11, 641-654.	1.5	63
16	A Video Imaging Technique for Assessing Dermal Exposure I. Instrument Design and Testing. AIHA Journal, 1986, 47, 764-770.	0.4	61
17	The challenge of effective surveillance in moving from low transmission to elimination of schistosomiasis in China. International Journal for Parasitology, 2011, 41, 1243-1247.	1.3	59
18	A multi-group model of Schistosoma japonicum transmission dynamics and control: model calibration and control prediction. Tropical Medicine and International Health, 2005, 10, 263-278.	1.0	58

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19	Comparison of three physiologically based pharmacokinetic models of benzene disposition. Toxicology and Applied Pharmacology, 1991, 110, 79-88.	1.3	56
20	A proportionate mortality analysis of California agricultural workers, 1978â€“1979. American Journal of Industrial Medicine, 1984, 6, 305-320.	1.0	53
21	Structure and Parameterization of Pharmacokinetic Models: Their Impact on Model Predictions. Risk Analysis, 1992, 12, 189-201.	1.5	51
22	Comparison of Gray-Level Reduction and Different Texture Spectrum Encoding Methods for Land-Use Classification Using a Panchromatic Ikonos Image. Photogrammetric Engineering and Remote Sensing, 2003, 69, 529-536.	0.3	49
23	Sister-chromatid exchanges in lymphocytes of anatomy students exposed to formaldehyde-embalming solution. Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis, 1986, 174, 135-139.	1.2	48
24	Large simulation models: calibration, uniqueness and goodness of fit. Environmental Modelling and Software, 1997, 12, 219-228.	1.9	46
25	A Spatial-Temporal Model for Assessing the Effects of Intervillage Connectivity in Schistosomiasis Transmission. Annals of the American Association of Geographers, 2006, 96, 31-46.	3.0	46
26	ENVIRONMENTAL VERSUS ANALYTICAL VARIABILITY IN EXPOSURE MEASUREMENTS. AIHA Journal, 1991, 52, 553-557.	0.4	44
27	Evaluation of Mammalian and Intermediate Host Surveillance Methods for Detecting Schistosomiasis Reemergence in Southwest China. PLoS Neglected Tropical Diseases, 2011, 5, e987.	1.3	43
28	Benzene Exposure in the Petroleum Refining Industry. Applied Industrial Hygiene, 1987, 2, 155-163.	0.1	42
29	A TASK-BASED STATISTICAL MODEL OF A WORKER'S EXPOSURE DISTRIBUTION: PART Iâ€”DESCRIPTION OF THE MODEL. AIHA Journal, 1993, 54, 211-220.	0.4	42
30	Toward Sustainable and Comprehensive Control of Schistosomiasis in China: Lessons from Sichuan. PLoS Neglected Tropical Diseases, 2011, 5, e1372.	1.3	42
31	Risk-Based Approach To Evaluate the Public Health Benefit of Additional Wastewater Treatment. Environmental Science & Technology, 2003, 37, 1882-1891.	4.6	40
32	Mechanisms of benzene carcinogenesis: Application of a physiological model of benzene pharmacokinetics and metabolism. Toxicology Letters, 1991, 56, 283-298.	0.4	39
33	Estimating the distribution of worm burden and egg excretion of Schistosoma japonicum by risk group in Sichuan Province, China. Parasitology, 2002, 125, 221-31.	0.7	39
34	Snail Density Prediction for Schistosomiasis Control Using Ikonos and ASTER Images. Photogrammetric Engineering and Remote Sensing, 2004, 70, 1285-1294.	0.3	39
35	Factors influencing the transmission of Schistosoma japonicum in the mountains of Sichuan Province of China. American Journal of Tropical Medicine and Hygiene, 2004, 70, 48-56.	0.6	38
36	Hydrological studies of schistosomiasis transport in Sichuan Province, China. Science of the Total Environment, 1998, 216, 193-203.	3.9	36

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37	Transport of Schistosoma japonicum cercariae and the feasibility of niclosamide for cercariae control. Parasitology International, 2005, 54, 83-89.	0.6	35
38	Persistence of parathion and its oxidation to paraoxon on the soil surface as related to worker reentry into treated crops. Bulletin of Environmental Contamination and Toxicology, 1975, 14, 265-272.	1.3	31
39	The interplay of climate, intervention and imported cases as determinants of the 2014 dengue outbreak in Guangzhou. PLoS Neglected Tropical Diseases, 2017, 11, e0005701.	1.3	31
40	PHYSIOLOGICAL DAMPING OF EXPOSURE VARIABILITY DURING BRIEF PERIODS. Annals of Occupational Hygiene, 1988, 32, 21-33.	1.9	29
41	The influence of Averaging Time on the Distribution of Exposures. AIHA Journal, 1986, 47, 365-368.	0.4	27
42	SPATIAL AND TEMPORAL VARIABILITY IN SCHISTOSOME CERCARIAL DENSITY DETECTED BY MOUSE BIOASSAYS IN VILLAGE IRRIGATION DITCHES IN SICHUAN, CHINA. American Journal of Tropical Medicine and Hygiene, 2004, 71, 554-557.	0.6	27
43	Preliminary Survey of Factors Affecting the Exposure of Harvesters to Pesticide Residues. AIHA Journal, 1974, 35, 374-380.	0.4	26
44	A TASK-BASED STATISTICAL MODEL OF A WORKER'S EXPOSURE DISTRIBUTION: PART IIâ€"APPLICATION TO SAMPLING STRATEGY. AIHA Journal, 1993, 54, 221-227.	0.4	26
45	Internal versus external determinants ofSchistosoma japonicumtransmission in irrigated agricultural villages. Journal of the Royal Society Interface, 2012, 9, 272-282.	1.5	26
46	VARIABILITY IN PROTECTION AFFORDED BY HALF-MASK RESPIRATORS AGAINST STYRENE EXPOSURE IN THE FIELD. AIHA Journal, 1990, 51, 625-631.	0.4	23
47	Weather-driven dynamics of an intermediate host: mechanistic and statistical population modelling of Oncomelania hupensis. Journal of Applied Ecology, 2007, 44, 781-791.	1.9	23
48	Parathion residues on citrus foliage. Decay and composition as related to worker hazard. Journal of Agricultural and Food Chemistry, 1975, 23, 808-810.	2.4	22
49	OSHA's Permissible Exposure Limits: Regulatory Compliance Versus Health Risk. Risk Analysis, 1989, 9, 579-586.	1.5	22
50	Morbidity Studies of Workers Exposed to Whole Body Vibration. Archives of Environmental Health, 1976, 31, 141-145.	0.4	21
51	Dynamic Model Comparing the Bionomics of Two Isolated Culex tarsalis (Diptera: Culicidae) Populations: Model Development. Journal of Medical Entomology, 1995, 32, 83-97.	0.9	21
52	Coupling Hydrologic and Infectious Disease Models To Explain Regional Differences in Schistosomiasis Transmission in Southwestern China. Environmental Science & Technology, 2008, 42, 2643-2649.	4.6	20
53	Model approaches for estimating the influence of time-varying socio-environmental factors on macroparasite transmission in two endemic regions. Epidemics, 2009, 1, 213-220.	1.5	20
54	The Economics of Reentry Regulation of Pesticides. American Journal of Agricultural Economics, 1993, 75, 946-958.	2.4	19

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55	Associations between Schistosomiasis and the Use of Human Waste as an Agricultural Fertilizer in China. PLoS Neglected Tropical Diseases, 2015, 9, e0003444.	1.3	19
56	COMPARATIVE TESTING OF AN FTIR REMOTE OPTICAL SENSOR WITH AREA SAMPLERS IN A CONTROLLED VENTILATION CHAMBER. AIHA Journal, 1992, 53, 611-616.	0.4	18
57	The persistence of ethion and Zolone residues on grape foliage in the central valley of California. Archives of Environmental Contamination and Toxicology, 1975, 3, 40-54.	2.1	17
58	ANALYSIS OF ORGANIC VAPORS IN THE WORKPLACE BY REMOTE SENSING FOURIER TRANSFORM INFRARED SPECTROSCOPY. AIHA Journal, 1993, 54, 545-556.	0.4	17
59	Examination of model uncertainty and parameter interaction in a global carbon cycling model (GLOCO). Environment International, 1999, 25, 787-803.	4.8	17
60	Repeated Schistosoma japonicum Infection Following Treatment in Two Cohorts: Evidence for Host Susceptibility to Helminthiasis?. PLoS Neglected Tropical Diseases, 2013, 7, e2098.	1.3	16
61	Spatial and temporal variability in schistosome cercarial density detected by mouse bioassays in village irrigation ditches in Sichuan, China. American Journal of Tropical Medicine and Hygiene, 2004, 71, 554-7.	0.6	16
62	Collecting Foliar Pesticide Related to Potential Airborne Exposure of Workers. Environmental Science & Technology, 1975, 9, 583-585.	4.6	15
63	A Note on the Assessment of Exposure Using One-Sided Tolerance Limits. AIHA Journal, 1987, 48, 89-93.	0.4	15
64	Polymorphic microsatellites in the human bloodfluke, Schistosoma japonicum, identified using a genomic resource. Parasites and Vectors, 2011, 4, 13.	1.0	15
65	Air sampling in the assessment of continuous exposures to acutely-toxic chemicals. Part I - Strategy. AIHA Journal, 1981, 42, 831-838.	0.4	14
66	The Impact of Schistosoma japonicum Infection and Treatment on Ultrasound-Detectable Morbidity: A Five-Year Cohort Study in Southwest China. PLoS Neglected Tropical Diseases, 2010, 4, e685.	1.3	13
67	Parameter Estimation and Site-Specific Calibration of Disease Transmission Models. Advances in Experimental Medicine and Biology, 2010, 673, 99-111.	0.8	13
68	Dynamic Model Comparing the Bionomics of Two Isolated Culex tarsalis (Diptera: Culicidae) Populations: Sensitivity Analysis. Journal of Medical Entomology, 1995, 32, 98-106.	0.9	12
69	Experimental and modelling investigations of Opisthorchis viverrini miracidia transmission over time and across temperatures: implications for control. International Journal for Parasitology, 2017, 47, 257-270.	1.3	12
70	GENETIC AND HOUSEHOLD RISK FACTORS FOR SCHISTOSOMA JAPONICUM INFECTION IN THE PRESENCE OF LARGER SCALE ENVIRONMENTAL DIFFERENCES IN THE MOUNTAINOUS TRANSMISSION AREAS OF CHINA. American Journal of Tropical Medicine and Hygiene, 2005, 73, 1145-1150.	0.6	11
71	Dynamic considerations for control of closed life support systems. Advances in Space Research, 1984, 4, 263-270.	1.2	10
72	Evaluation of an educational intervention on villagersâ€™ knowledge, attitude and behaviour regarding transmission of Schistosoma japonicum in Sichuan province, China. Acta Tropica, 2013, 127, 226-235.	0.9	10

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73	Preliminary genetic evidence of two different populations of Opisthorchis viverrini in Lao PDR. Parasitology Research, 2017, 116, 1247-1256.	0.6	10
74	Model-Based Insights into Multi-Host Transmission and Control of Schistosomiasis. PLoS Medicine, 2008, 5, e23.	3.9	10
75	Control of DO level in a river under uncertainty. Water Resources Research, 1983, 19, 1266-1270.	1.7	9
76	A PROBABILITY MODEL FOR ASSESSING EXPOSURE AMONG RESPIRATOR WEARERS: PART Iâ€"DESCRIPTION OF THE MODEL. AIHA Journal, 1992, 53, 411-418.	0.4	9
77	Using variable importance measures from causal inference to rank risk factors of schistosomiasis infection in a rural setting in China. Epidemiologic Perspectives and Innovations, 2010, 7, 3.	7.0	9
78	Exploring the impact of infection-induced immunity on the transmission of Schistosoma japonicum in hilly and mountainous environments in China. Acta Tropica, 2014, 133, 8-14.	0.9	9
79	Parathion and diisopropylfluorophosphate (DFP) toxicity in partially hepatectomized rats. Toxicology and Applied Pharmacology, 1973, 26, 314-317.	1.3	8
80	Neurotoxic esterase in rooster testis. Toxicology and Applied Pharmacology, 1985, 77, 175-180.	1.3	8
81	An Example of Augmenting Regional Sensitivity Analysis Using Machine Learning Software. Water Resources Research, 2020, 56, e2019WR026379.	1.7	8
82	Use of Ultrasonography to Evaluate Schistosoma japonicum-Related Morbidity in Children, Sichuan Province, China, 2000â€"2007. American Journal of Tropical Medicine and Hygiene, 2010, 82, 103-111.	0.6	7
83	Review of â€œMathematical Models for Neglected Tropical Diseases: Essential Tools for Control and Elimination, Part Bâ€•Edited by Maria-Gloria BasÃ¡Ã±ez and Roy M. Anderson. Parasites and Vectors, 2017, 10, 38.	1.0	7
84	Modeling liver fluke transmission in northeast Thailand: Impacts of development, hydrology, and control. Acta Tropica, 2018, 188, 101-107.	0.9	7
85	Application of Mathematical Modeling for Ethylene Oxide Exposure Assessment. Journal of Occupational and Environmental Hygiene, 1992, 7, 744-748.	0.5	6
86	Genetic and household risk factors for Schistosoma japonicum infection in the presence of larger scale environmental differences in the mountainous transmission areas of China. American Journal of Tropical Medicine and Hygiene, 2005, 73, 1145-50.	0.6	6
87	A dynamic model for studying the relationship between dose and exposure in carcinogenesis. Mathematical Biosciences, 1975, 26, 19-39.	0.9	5
88	Estimating Maximum Concentrations for Open Path Monitoring Along a Fixed Beam Path. Journal of the Air and Waste Management Association, 1999, 49, 424-433.	0.9	5
89	Mathematical modeling in environmental health.. Environmental Health Perspectives, 2002, 110, A382.	2.8	5
90	Commentary by Spear, R. on â€œIntegration of Water, Sanitation, and Hygiene for the Prevention and Control of Neglected Tropical Diseases: A Rationale for Inter-Sectoral Collaboration:â€•Can the Control of NTDs Profit from a Good WASH?. PLoS Neglected Tropical Diseases, 2013, 7, e2473.	1.3	5

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91	Exposure versus Susceptibility as Alternative Bases for New Approaches to Surveillance for Schistosoma japonicum in Low Transmission Environments. PLoS Neglected Tropical Diseases, 2016, 10, e0004425.	1.3	5
92	Model parameter estimation and analysis: Understanding parametric structure. Annals of Biomedical Engineering, 1994, 22, 97-111.	1.3	4
93	Exploring the Contribution of Host Susceptibility to Epidemiological Patterns of Schistosoma japonicum Infection Using an Individual-Based Model. American Journal of Tropical Medicine and Hygiene, 2015, 92, 1245-1252.	0.6	4
94	Low Transmission to Elimination: Rural Development as a Key Determinant of the End-Game Dynamics of Schistosoma japonicum in China. Tropical Medicine and Infectious Disease, 2017, 2, 35.	0.9	4
95	Assessing Health Risks in the Presence of Variable Exposure and Uncertain Biological Effects. , 1991, , 315-325.		4
96	Monte Carlo method for component sizing. Journal of Spacecraft and Rockets, 1970, 7, 1127-1129.	1.3	3
97	Source identification for multiple chemical exposure using pattern recognition and classification techniques. Environmental Science & Technology, 1993, 27, 2430-2434.	4.6	3
98	Modeling the Combined Influence of Host Dispersal and Waterborne Fate and Transport on Pathogen Spread in Complex Landscapes. Water Quality, Exposure, and Health, 2012, 4, 159-168.	1.5	3
99	Estimation of Cumulative Exposures to Ethylene Oxide Associated with Hospital Sterilizer Operation. AIHA Journal, 1984, 45, 44-47.	0.4	2
100	A PROBABILITY MODEL FOR ASSESSING EXPOSURE AMONG RESPIRATOR WEARERS: PART IIâ€"OVEREXPOSURE TO CHRONIC VERSUS ACUTE TOXICANTS. AIHA Journal, 1992, 53, 419-426.	0.4	2
101	Variability in Protection Afforded by Half-Mask Respirators Against Styrene Exposure in the Field. AIHA Journal, 1990, 51, 625-631.	0.4	1
102	Quality Control of Work Environments. AIHA Journal, 1971, 32, 546-551.	0.4	0
103	Individual Versus Group Differences in Exposure and Risk. , 2020, , 283-295.		0
104	Exploring the Local Determinants of SARS-CoV-2 Transmission and Control via an Exposure-Based Model. Environmental Science & Technology, 2022, 56, 1801-1810.	4.6	0
105	Dynamic Systems Analysis in Interdisciplinary Research. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1975, 97, 17-18.	0.9	0