Nicolas Ray

List of Publications by Year
in descending order

136 papers	8,581 citations	76294 40 h-index	49868 87 g-index
146 all docs	146 docs citations	146 times ranked	11391 citing authors

#	Article	IF	Citations
1	A plea for a worldwide development of dark infrastructure for biodiversity – Practical examples and ways to go forward. Landscape and Urban Planning, 2022, 219, 104332.	3.4	22
2	Use of Physical Accessibility Modelling in Diagnostic Network Optimization: A Review. Diagnostics, 2022, 12, 103.	1.3	1
3	Constructing and validating a transferable epidemic risk index in data scarce environments using open data: A case study for dengue in the Philippines. PLoS Neglected Tropical Diseases, 2022, 16, e0009262.	1.3	2
4	Essential earth observation variables for high-level multi-scale indicators and policies. Environmental Science and Policy, 2022, 131, 105-117.	2.4	16
5	Assessment of the effect of snakebite on health and socioeconomic factors using a One Health perspective in the Terai region of Nepal: a cross-sectional study. The Lancet Global Health, 2022, 10, e409-e415.	2.9	15
6	Snakebite epidemiology in humans and domestic animals across the Terai region in Nepal: a multicluster random survey. The Lancet Global Health, 2022, 10, e398-e408.	2.9	13
7	Balancing Public & Economic Health in Japan during the COVID-19 Pandemic: A Descriptive Analysis. Epidemiologia, 2022, 3, 199-217.	1.1	0
8	One decade (2011–2020) of European agricultural water stress monitoring by MSG-SEVIRI: workflow implementation on the Virtual Earth Laboratory (VLab) platform. International Journal of Digital Earth, 2022, 15, 730-747.	1.6	3
9	Downscaling Switzerland Land Use/Land Cover Data Using Nearest Neighbors and an Expert System. Land, 2022, 11, 615.	1.2	14
10	Shoreline delineation service: using an earth observation data cube and sentinel 2 images for coastal monitoring. Earth Science Informatics, 2022, 15, 1587-1596.	1.6	4
11	Optimising scale and deployment of community health workers in Sierra Leone: a geospatial analysis. BMJ Global Health, 2022, 7, e008141.	2.0	5
12	Assessing the Applications of Earth Observation Data for Monitoring Artisanal and Small-Scale Gold Mining (ASGM) in Developing Countries. Remote Sensing, 2022, 14, 2971.	1.8	5
13	Combining school-catchment area models with geostatistical models for analysing school survey data from low-resource settings: Inferential benefits and limitations. Spatial Statistics, 2022, 51, 100679.	0.9	7
14	Modelling Accessibility to Urban Green Areas Using Open Earth Observations Data: A Novel Approach to Support the Urban SDG in Four European Cities. Remote Sensing, 2021, 13, 422.	1.8	33
15	The winding road to health: A systematic scoping review on the effect of geographical accessibility to health care on infectious diseases in low- and middle-income countries. PLoS ONE, 2021, 16, e0244921.	1.1	24
16	Cloud and Cloud-Shadow Detection for Applications in Mapping Small-Scale Mining in Colombia Using Sentinel-2 Imagery. Remote Sensing, 2021, 13, 736.	1.8	8
17	Novel transdisciplinary methodology for cross-sectional analysis of snakebite epidemiology at national scale. PLoS Neglected Tropical Diseases, 2021, 15, e0009023.	1.3	19
18	Air temperature forecasting using artificial neural network for Ararat valley. Earth Science Informatics, 2021, 14, 711-722.	1.6	31

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19	Geospatial User Feedback: How to Raise Users' Voices and Collectively Build Knowledge at the Same Time. ISPRS International Journal of Geo-Information, 2021, 10, 141.	1.4	1
20	Optimising geographical accessibility to primary health care: a geospatial analysis of community health posts and community health workers in Niger. BMJ Global Health, 2021, 6, e005238.	2.0	15
21	Toward a definition of Essential Mountain Climate Variables. One Earth, 2021, 4, 805-827.	3.6	26
22	National optimisation of accessibility to emergency obstetrical and neonatal care in Togo: a geospatial analysis. BMJ Open, 2021, 11, e045891.	0.8	9
23	What is the impact of snakebite envenoming on domestic animals? A nation-wide community-based study in Nepal and Cameroon. Toxicon: X, 2021, 9-10, 100068.	1.2	7
24	Defining service catchment areas in low-resource settings. BMJ Global Health, 2021, 6, e006381.	2.0	27
25	Addressing the global snakebite crisis with geo-spatial analyses – Recent advances and future direction. Toxicon: X, 2021, 11, 100076.	1.2	13
26	Modelling Physical Accessibility to Public Green Spaces in Switzerland to Support the SDG11. Geomatics, 2021, 1, 383-398.	1.0	8
27	SwissEnvEO: A FAIR National Environmental Data Repository for Earth Observation Open Science. Data Science Journal, 2021, 20, .	0.6	8
28	Access to antivenoms in the developing world: A multidisciplinary analysis. Toxicon: X, 2021, 12, 100086.	1.2	28
29	SARS-CoV-2 antibody seroprevalence and associated risk factors in an urban district in Cameroon. Nature Communications, 2021, 12, 5851.	5.8	38
30	Estimating and predicting snakebite risk in the Terai region of Nepal through a high-resolution geospatial and One Health approach. Scientific Reports, 2021, 11, 23868.	1.6	9
31	Reviewing the discoverability and accessibility to data and information products linked to Essential Climate Variables. International Journal of Digital Earth, 2020, 13, 236-252.	1.6	6
32	GEOEssential – mainstreaming workflows from data sources to environment policy indicators with essential variables. International Journal of Digital Earth, 2020, 13, 322-338.	1.6	31
33	Towards a knowledge base to support global change policy goals. International Journal of Digital Earth, 2020, 13, 188-216.	1.6	41
34	Data Cube on Demand (DCoD): Generating an earth observation Data Cube anywhere in the world. International Journal of Applied Earth Observation and Geoinformation, 2020, 87, 102035.	1.4	27
35	Spatial access inequities and childhood immunisation uptake in Kenya. BMC Public Health, 2020, 20, 1407.	1.2	35
36	Modelling geographical accessibility to support disaster response and rehabilitation of a healthcare system: an impact analysis of Cyclones Idai and Kenneth in Mozambique. BMJ Open, 2020, 10, e039138.	0.8	23

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37	Essential Variables for Environmental Monitoring: What Are the Possible Contributions of Earth Observation Data Cubes?. Data, 2020, 5, 100.	1.2	22
38	Forty-four years of global trade in CITES-listed snakes: Trends and implications for conservation and public health. Biological Conservation, 2020, 248, 108601.	1.9	35
39	Identifying the snake: First scoping review on practices of communities and healthcare providers confronted with snakebite across the world. PLoS ONE, 2020, 15, e0229989.	1.1	40
40	Assessing the Increase of Snakebite Incidence in Relationship to Flooding Events. Journal of Environmental and Public Health, 2020, 2020, 1-9.	0.4	12
41	Knowledge generation using satellite earth observations to support sustainable development goals (SDG): A use case on Land degradation. International Journal of Applied Earth Observation and Geoinformation, 2020, 88, 102068.	1.4	73
42	Towards integrated essential variables for sustainability. International Journal of Digital Earth, 2020, 13, 158-165.	1.6	26
43	Monitoring land degradation at national level using satellite Earth Observation time-series data to support SDG15 â€" exploring the potential of data cube. Big Earth Data, 2020, 4, 3-22.	2.0	62
44	Influence of Paleolithic range contraction, admixture and longâ€distance dispersal on genetic gradients of modern humans in Asia. Molecular Ecology, 2020, 29, 2150-2159.	2.0	4
45	Paving the Way towards an Armenian Data Cube. Data, 2019, 4, 117.	1.2	26
46	Definition of candidate Essential Variables for the monitoring of mineral resource exploitation. Geo-Spatial Information Science, 2019, 22, 265-278.	2.4	5
47	Paving the Way to Increased Interoperability of Earth Observations Data Cubes. Data, 2019, 4, 113.	1.2	31
48	Snakebite and snake identification: empowering neglected communities and health-care providers with AI. The Lancet Digital Health, 2019, 1, e202-e203.	5.9	22
49	Snakebite and its impact in rural communities: The need for a One Health approach. PLoS Neglected Tropical Diseases, 2019, 13, e0007608.	1.3	35
50	Modelling the nocturnal ecological continuum of the State of Geneva, Switzerland, based on high-resolution nighttime imagery. Remote Sensing Applications: Society and Environment, 2019, 16, 100268.	0.8	1
51	MapX: An open geospatial platform to manage, analyze and visualize data on natural resources and the environment. SoftwareX, 2019, 9, 77-84.	1.2	22
52	SPLATCHE3: simulation of serial genetic data under spatially explicit evolutionary scenarios including long-distance dispersal. Bioinformatics, 2019, 35, 4480-4483.	1.8	41
53	Proposing standardised geographical indicators of physical access to emergency obstetric and newborn care in low-income and middle-income countries. BMJ Global Health, 2019, 4, e000778.	2.0	31
54	Snow Cover Evolution in the Gran Paradiso National Park, Italian Alps, Using the Earth Observation Data Cube. Data, 2019, 4, 138.	1.2	24

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55	National Open Data Cubes and Their Contribution to Country-Level Development Policies and Practices. Data, 2019, 4, 144.	1.2	31
56	Wet Markets and Food Safety: TripAdvisor for Improved Global Digital Surveillance. JMIR Public Health and Surveillance, 2019, 5, e11477.	1.2	16
57	GIS-based assessment of photovoltaic (PV) and concentrated solar power (CSP) generation potential in West Africa. Renewable and Sustainable Energy Reviews, 2018, 81, 2088-2103.	8.2	148
58	High contamination in the areas surrounding abandoned mines and mining activities: An impact assessment of the Dilala, Luilu and Mpingiri Rivers, Democratic Republic of the Congo. Chemosphere, 2018, 191, 1008-1020.	4.2	43
59	Explaining and Measuring Social-Ecological Pathways: The Case of Global Changes and Water Security. Sustainability, 2018, 10, 4378.	1.6	15
60	Consequences of diverse evolutionary processes on american genetic gradients of modern humans. Heredity, 2018, 121, 548-556.	1.2	8
61	Vulnerability to snakebite envenoming: a global mapping of hotspots. Lancet, The, 2018, 392, 673-684.	6.3	227
62	Participatory approaches and open data on venomous snakes: A neglected opportunity in the global snakebite crisis?. PLoS Neglected Tropical Diseases, 2018, 12, e0006162.	1.3	20
63	Bringing GEOSS Services into Practice: A Capacity Building Resource on Spatial Data Infrastructures (SDI). Transactions in GIS, 2017, 21, 811-824.	1.0	32
64	Breaking walls towards fully open source hydrological modeling. Water Resources, 2017, 44, 23-30.	0.3	8
65	Assessing the Dynamics of Organic Aerosols over the North Atlantic Ocean. Scientific Reports, 2017, 7, 45476.	1.6	11
66	Spatially enabling the Global Framework for Climate Services: Reviewing geospatial solutions to efficiently share and integrate climate data & information. Climate Services, 2017, 8, 44-58.	1.0	41
67	Mixing of porpoise ecotypes in southwestern UK waters revealed by genetic profiling. Royal Society Open Science, 2017, 4, 160992.	1.1	40
68	A web platform for landuse, climate, demography, hydrology and beach erosion in the Black Sea catchment. Scientific Data, 2017, 4, 170087.	2.4	13
69	Building an Earth Observations Data Cube: lessons learned from the Swiss Data Cube (SDC) on generating Analysis Ready Data (ARD). Big Earth Data, 2017, 1, 100-117.	2.0	129
70	SCOPEDâ€W: SCalable Online Platform for extracting Environmental Data and Waterâ€related model outputs. Transactions in GIS, 2017, 21, 748-763.	1.0	3
71	Long-distance dispersal suppresses introgression of local alleles during range expansions. Heredity, 2017, 118, 135-142.	1.2	24
72	GEOCAB Portal: A gateway for discovering and accessing capacity building resources in Earth Observation. International Journal of Applied Earth Observation and Geoinformation, 2017, 54, 95-104.	1.4	15

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73	Lifting the Information Barriers to Address Sustainability Challenges with Data from Physical Geography and Earth Observation. Sustainability, 2017, 9, 858.	1.6	25
74	Spatial Dynamic Modelling of Future Scenarios of Land Use Change in Vaud and Valais, Western Switzerland. ISPRS International Journal of Geo-Information, 2017, 6, 115.	1.4	16
75	Leachates draining from controlled municipal solid waste landfill: Detailed geochemical characterization and toxicity tests. Waste Management, 2016, 55, 238-248.	3.7	87
76	Assessment of trace metal and rare earth elements contamination in rivers around abandoned and active mine areas. The case of Lubumbashi River and Tshamilemba Canal, Katanga, Democratic Republic of the Congo. Chemie Der Erde, 2016, 76, 353-362.	0.8	58
77	Integration of data and computing infrastructures for earth science: an image mosaicking use-case. Earth Science Informatics, 2016, 9, 325-342.	1.6	7
78	Facilitating the production of ISO-compliant metadata of geospatial datasets. International Journal of Applied Earth Observation and Geoinformation, 2016, 44, 239-243.	1.4	12
79	Long-Distance Dispersal Shaped Patterns of Human Genetic Diversity in Eurasia. Molecular Biology and Evolution, 2016, 33, 946-958.	3.5	36
80	Conceptual model for environmental science applications on parallel and distributed infrastructures. Environmental Systems Research, 2015, 4, .	1.5	7
81	An interoperable cloud-based scientific GATEWAY for NDVI time series analysis. Computer Standards and Interfaces, 2015, 41, 79-84.	3.8	11
82	Environmental data gaps in Black Sea catchment countries: INSPIRE and GEOSS State of Play. Environmental Science and Policy, 2015, 46, 13-25.	2.4	15
83	Filling the gap between Earth observation and policy making in the Black Sea catchment with enviroGRIDS. Environmental Science and Policy, 2015, 46, 1-12.	2.4	20
84	An interoperable web portal for parallel geoprocessing of satellite image vegetation indices. Earth Science Informatics, 2015, 8, 453-460.	1.6	9
85	Simplified Toolbar to Accelerate Repeated Tasks (START) for ArcGIS. International Journal of Applied Geospatial Research, 2014, 5, 87-94.	0.2	0
86	Admixture in Latin America: Geographic Structure, Phenotypic Diversity and Self-Perception of Ancestry Based on 7,342 Individuals. PLoS Genetics, 2014, 10, e1004572.	1.5	350
87	MASCOT: Multi-Criteria Analytical SCOring Tool for ArcGIS Desktop. International Journal of Information Technology and Decision Making, 2014, 13, 1135-1159.	2.3	6
88	Genetic consequences of habitat fragmentation during a range expansion. Heredity, 2014, 112, 291-299.	1.2	128
89	Reviewing innovative Earth observation solutions for filling science-policy gaps in hydrology. Journal of Hydrology, 2014, 518, 267-277.	2.3	32
90	Unravelling landscape variables with multiple approaches to overcome scarce species knowledge: a landscape genetic study of the slow worm. Conservation Genetics, 2013, 14, 783-794.	0.8	6

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91	Influence of Admixture and Paleolithic Range Contractions on Current European Diversity Gradients. Molecular Biology and Evolution, 2013, 30, 57-61.	3.5	48
92	Distributed computation of large scale SWAT models on the Grid. Environmental Modelling and Software, 2013, 41, 223-230.	1.9	43
93	Enabling Efficient Discovery of and Access to Spatial Data Services. International Journal of Advanced Computer Science and Applications, 2013, 3, .	0.5	2
94	OGC Compliant Services for Remote Sensing Processing over the Grid Infrastructure. International Journal of Advanced Computer Science and Applications, 2013, 3, .	0.5	3
95	Remotely Sensed Data Processing on Grids by Using GreenLand Web Based Platform. International Journal of Advanced Computer Science and Applications, 2013, 3, .	0.5	2
96	An Interoperable, GIS-oriented, Information and Support System for Water Resources Management. International Journal of Advanced Computer Science and Applications, 2013, 3, .	0.5	5
97	Distributed Geocomputation for Modeling the Hydrology of the Black Sea Watershed. NATO Science for Peace and Security Series C: Environmental Security, 2012, , 141-157.	0.1	3
98	Consequences of Range Contractions and Range Shifts on Molecular Diversity. Molecular Biology and Evolution, 2012, 29, 207-218.	3.5	204
99	Challenges for drought mitigation in Africa: The potential use of geospatial data and drought information systems. Applied Geography, 2012, 34, 471-486.	1.7	127
100	Parsimony-based pedigree analysis and individual-based landscape genetics suggest topography to restrict dispersal and connectivity in the endangered capercaillie. Biological Conservation, 2012, 152, 241-252.	1.9	19
101	WPS mediation: An approach to process geospatial data on different computing backends. Computers and Geosciences, 2012, 47, 20-33.	2.0	37
102	Software Platform Interoperability Throughout EnviroGRIDS Portal. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 1617-1627.	2.3	8
103	Reconstructing Native American population history. Nature, 2012, 488, 370-374.	13.7	699
104	Grid computing technology for hydrological applications. Journal of Hydrology, 2011, 403, 186-199.	2.3	44
105	Grid-enabled Spatial Data Infrastructure for environmental sciences: Challenges and opportunities. Future Generation Computer Systems, 2011, 27, 292-303.	4.9	35
106	Grid based data processing tools and applications for black sea catchment basin. , 2011, , .		6
107	Sharing Environmental Data through GEOSS. International Journal of Applied Geospatial Research, 2011, 2, 1-17.	0.2	26
108	Principal Component Analysis under Population Genetic Models of Range Expansion and Admixture. Molecular Biology and Evolution, 2010, 27, 1257-1268.	3.5	125

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109	Contrasting Patterns of Nuclear and mtDNA Diversity in Native American Populations. Annals of Human Genetics, 2010, 74, 525-538.	0.3	44
110	A Statistical Evaluation of Models for the Initial Settlement of the American Continent Emphasizes the Importance of Gene Flow with Asia. Molecular Biology and Evolution, 2010, 27, 337-345.	3.5	97
111	SPLATCHE2: a spatially explicit simulation framework for complex demography, genetic admixture and recombination. Bioinformatics, 2010, 26, 2993-2994.	1.8	113
112	A first step towards inferring levels of longâ€distance dispersal during past expansions. Molecular Ecology Resources, 2010, 10, 902-914.	2.2	56
113	Combining genetic, historical and geographical data to reconstruct the dynamics of bioinvasions: application to the cane toad<i>Bufo marinus</i>. Molecular Ecology Resources, 2010, 10, 886-901.	2.2	54
114	Assessing landscape connectivity with calibrated costâ€distance modelling: predicting common toad distribution in a context of spreading agriculture. Journal of Applied Ecology, 2009, 46, 833-841.	1.9	47
115	Large Allele Frequency Differences between Human Continental Groups are more Likely to have Occurred by Drift During range Expansions than by Selection. Annals of Human Genetics, 2009, 73, 95-108.	0.3	140
116	Inferring Past Demography Using Spatially Explicit Population Genetic Models. Human Biology, 2009, 81, 141-157.	0.4	35
117	AccessMod 3.0: computing geographic coverage and accessibility to health care services using anisotropic movement of patients. International Journal of Health Geographics, 2008, 7, 63.	1.2	142
118	Colonization history of the Swiss Rhine basin by the bullhead (<i>Cottus gobio</i>): inference under a Bayesian spatially explicit framework. Molecular Ecology, 2008, 17, 757-772.	2.0	71
119	Surfing during population expansions promotes genetic revolutions and structuration. Trends in Ecology and Evolution, 2008, 23, 347-351.	4.2	578
120	Geographic Patterns of Genome Admixture in Latin American Mestizos. PLoS Genetics, 2008, 4, e1000037.	1.5	377
121	Reply to Garrigan and Hammer: Ancient lineages and assimilation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, .	3.3	2
122	Statistical evaluation of alternative models of human evolution. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 17614-17619.	3.3	497
123	Genetic Variation and Population Structure in Native Americans. PLoS Genetics, 2007, 3, e185.	1.5	454
124	Rise of oceanographic barriers in continuous populations of a cetacean: the genetic structure of harbour porpoises in Old World waters. BMC Biology, 2007, 5, 30.	1.7	161
125	Response to Comment on "Ongoing Adaptive Evolution of ASPM, a Brain Size Determinant in Homo sapiens" and "Microcephalin, a Gene Regulating Brain Size, Continues to Evolve Adaptively in Humans". Science, 2006, 313, 172b-172b.	6.0	51
126	Genetic isolation by distance and landscape connectivity in the American marten (Martes americana). Landscape Ecology, 2006, 21, 877-889.	1.9	125

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127	Subjective uncertainties in habitat suitability maps. Ecological Modelling, 2006, 195, 172-186.	1.2	52
128	pathmatrix: a geographical information system tool to compute effective distances among samples. Molecular Ecology Notes, 2005, 5, 177-180.	1.7	149
129	Bayesian Estimation of Recent Migration Rates After a Spatial Expansion. Genetics, 2005, 170, 409-417.	1.2	112
130	Recovering the geographic origin of early modern humans by realistic and spatially explicit simulations. Genome Research, 2005, 15, 1161-1167.	2.4	100
131	splatche: a program to simulate genetic diversity taking into account environmental heterogeneity. Molecular Ecology Notes, 2004, 4, 139-142.	1.7	129
132	Intra-Deme Molecular Diversity in Spatially Expanding Populations. Molecular Biology and Evolution, 2003, 20, 76-86.	3.5	519
133	Title is missing!. Biodiversity and Conservation, 2002, 11, 2143-2165.	1.2	171
134	Modelling forest degradation and risk of disease outbreaks in mainland Equatorial Guinea. Journal of Public Health and Emergency, 0, 5, 15-15.	4.4	0
135	Spatial Data Infrastructures in Africa: A Gap Analysis. Journal of Environmental Informatics, 0, , .	6.0	7
136	Drying conditions in Switzerland â€" indication from a 35-year Landsat time-series analysis of vegetation water content estimates to support SDGs. Big Earth Data, 0, , 1-31.	2.0	13