Sérgio Henrique Godinho Silva

List of Publications by Year in descending order

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89 papers

1,624 citations

304743 22 h-index 35 g-index

89 all docs 89 docs citations

89 times ranked 937 citing authors

#	Article	IF	CITATIONS
1	Prediction of soil nutrient content via pXRF spectrometry and its spatial variation in a highly variable tropical area. Precision Agriculture, 2022, 23, 18-34.	6.0	9
2	Variable selection for estimating individual tree height using genetic algorithm and random forest. Forest Ecology and Management, 2022, 504, 119828.	3.2	14
3	The fundamental of the effects of water, organic matter, and iron forms on the pXRF information in soil analyses. Catena, 2022, 210, 105868.	5.0	8
4	Using proximal sensors to assess pedogenetic development of Inceptisols and Oxisols in Brazil. Geoderma Regional, 2022, 28, e00465.	2.1	0
5	Prediction of soil organic matter content by combining data from Nix ProTM color sensor and portable X-ray fluorescence spectrometry in tropical soils. Geoderma Regional, 2022, 28, e00461.	2.1	6
6	Relationship between elemental content determined. Soil Research, 2022, 60, 661-677.	1.1	3
7	Surface reflectance and pXRF for assessing soil weathering indexes. Journal of South American Earth Sciences, 2022, 115, 103747.	1.4	1
8	Variation of properties of two contrasting Oxisols enhanced by pXRF and Vis-NIR. Journal of South American Earth Sciences, 2022, 115, 103748.	1.4	4
9	The Brazilian soil Mid-infrared Spectral Library: The Power of the Fundamental Range. Geoderma, 2022, 415, 115776.	5.1	11
10	Proximal sensor data fusion and auxiliary information for tropical soil property prediction: Soil texture. Geoderma, 2022, 422, 115936.	5.1	19
11	Assessing soil mineralogy and weathering degree by a multi-range sensor synergistic approach: From parent rock to topsoil. Journal of South American Earth Sciences, 2022, 116, 103855.	1.4	0
12	Proximal sensor data fusion for tropical soil property prediction: Soil fertility properties. Journal of South American Earth Sciences, 2022, 116, 103873.	1.4	10
13	Using Nix color sensor and Munsell soil color variables to classify contrasting soil types and predict soil organic carbon in Eastern India. Computers and Electronics in Agriculture, 2022, 199, 107192.	7.7	7
14	Influence of auxiliary soil variables to improve PXRF-based soil fertility evaluation in India. Geoderma Regional, 2022, 30, e00557.	2.1	5
15	Rapid soil fertility prediction using X-ray fluorescence data and machine learning algorithms. Catena, 2021, 197, 105003.	5.0	42
16	Soil quality indices as affected by longâ€term burning, irrigation, tillage, and fertility management. Soil Science Society of America Journal, 2021, 85, 379-395.	2.2	15
17	Soil physicochemical properties and terrain information predict soil enzymes activity in phytophysiognomies of the Quadrilátero FerrÃfero region in Brazil. Catena, 2021, 199, 105083.	5.0	12
18	pXRF in tropical soils: Methodology, applications, achievements and challenges. Advances in Agronomy, 2021, , 1-62.	5.2	47

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19	X-ray fluorescence spectrometry applied to digital mapping of soil fertility attributes in tropical region with elevated spatial variability. Anais Da Academia Brasileira De Ciencias, 2021, 93, e20200646.	0.8	2
20	Microbiological indicators of soil quality predicted via proximal and remote sensing. European Journal of Soil Biology, 2021, 104, 103315.	3.2	1
21	Drivers of Organic Carbon Stocks in Different LULC History and along Soil Depth for a 30 Years Image Time Series. Remote Sensing, 2021, 13, 2223.	4.0	22
22	National-scale spatial variations of soil magnetic susceptibility in Brazil. Journal of South American Earth Sciences, 2021, 108, 103191.	1.4	11
23	Proximal sensor-enhanced soil mapping in complex soil-landscape areas of Brazil. Pedosphere, 2021, 31, 615-626.	4.0	5
24	Elemental analysis of biochar-based fertilizers via portable X-ray fluorescence spectrometry. Environmental Technology and Innovation, 2021, 23, 101788.	6.1	8
25	Soil parent material prediction through satellite multispectral analysis on a regional scale at the Western Paulista Plateau, Brazil. Geoderma Regional, 2021, 26, e00412.	2.1	7
26	Changes in soil profile hydraulic properties and porosity as affected by deep tillage soil preparation and Brachiaria grass intercropping in a recent coffee plantation on a naturally dense Inceptisol. Soil and Tillage Research, 2021, 213, 105127.	5.6	10
27	Formation and variation of a 4.5Âm deep Oxisol in southeastern Brazil. Catena, 2021, 206, 105492.	5.0	16
28	A sensors-based profile heterogeneity index for soil characterization. Catena, 2021, 207, 105670.	5.0	3
29	Micronutrients prediction via pXRF spectrometry in Brazil: Influence of weathering degree. Geoderma Regional, 2021, 27, e00431.	2.1	10
30	Chemical and mineralogical changes in the textural fractions of quartzite-derived tropical soils, along weathering, assessed by portable X-ray fluorescence spectrometry and X-ray diffraction. Journal of South American Earth Sciences, 2021, 112, 103634.	1,4	2
31	Prediction of soil fertility via portable X-ray fluorescence (pXRF) spectrometry and soil texture in the Brazilian Coastal Plains. Geoderma, 2020, 357, 113960.	5.1	30
32	Deep furrow and additional liming for coffee cultivation under first year in a naturally dense inceptisol. Geoderma, 2020, 357, 113934.	5.1	12
33	Assessing models for prediction of some soil chemical properties from portable X-ray fluorescence (pXRF) spectrometry data in Brazilian Coastal Plains. Geoderma, 2020, 357, 113957.	5.1	21
34	Soil horizon variation: A review. Advances in Agronomy, 2020, 160, 125-185.	5.2	57
35	Soil texture prediction in tropical soils: A portable X-ray fluorescence spectrometry approach. Geoderma, 2020, 362, 114136.	5.1	52
36	Tropical soil pH and sorption complex prediction via portable X-ray fluorescence spectrometry. Geoderma, 2020, 361, 114132.	5.1	16

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37	Tropical soil order and suborder prediction combining optical and X-ray approaches. Geoderma Regional, 2020, 23, e00331.	2.1	11
38	Proximal sensing applied to soil texture prediction and mapping in Brazil. Geoderma Regional, 2020, 23, e00321.	2.1	13
39	Soils of the Brazilian Coastal Plains biome: prediction of chemical attributes via portable X-ray fluorescence (pXRF) spectrometry and robust prediction models. Soil Research, 2020, 58, 683.	1.1	18
40	From sensor data to Munsell color system: Machine learning algorithm applied to tropical soil color classification via Nixâ,,¢ Pro sensor. Geoderma, 2020, 375, 114471.	5.1	30
41	Soil parent material prediction for Brazil via proximal soil sensing. Geoderma Regional, 2020, 22, e00310.	2.1	8
42	Soil texture prediction using portable X-ray fluorescence spectrometry and visible near-infrared diffuse reflectance spectroscopy. Geoderma, 2020, 376, 114553.	5.1	38
43	Soil subgroup prediction via portable X-ray fluorescence and visible near-infrared spectroscopy. Geoderma, 2020, 365, 114212.	5.1	40
44	Modeling and prediction of sulfuric acid digestion analyses data from PXRF spectrometry in tropical soils. Scientia Agricola, 2020, 77, .	1.2	13
45	A importância da avaliação da concentração natural de Pb em solos do Estado de Minas Gerais. Research, Society and Development, 2020, 9, e350985022.	0.1	1
46	The Brazilian Soil Spectral Library (BSSL): A general view, application and challenges. Geoderma, 2019, 354, 113793.	5.1	100
47	Tropical Soil Toposequence Characterization via pXRF Spectrometry. Soil Science Society of America Journal, 2019, 83, 1153-1166.	2.2	17
48	Transferability, accuracy, and uncertainty assessment of different knowledge-based approaches for soil types mapping. Catena, 2019, 182, 104134.	5.0	8
49	Parent material distribution mapping from tropical soils data via machine learning and portable X-ray fluorescence (pXRF) spectrometry in Brazil. Geoderma, 2019, 354, 113885.	5.1	36
50	Diagnosing, Ameliorating, and Monitoring Soil Compaction in Noâ€Till Brazilian Soils. , 2019, 2, 1-14.		8
51	Advances in Tropical Soil Characterization via Portable X-Ray Fluorescence Spectrometry. Pedosphere, 2019, 29, 468-482.	4.0	30
52	Soil type spatial prediction from Random Forest: different training datasets, transferability, accuracy and uncertainty assessment. Scientia Agricola, 2019, 76, 243-254.	1.2	20
53	Object-based random forest modelling of aboveground forest biomass outperforms a pixel-based approach in a heterogeneous and mountain tropical environment. International Journal of Applied Earth Observation and Geoinformation, 2019, 78, 175-188.	2.8	59
54	Synthesis of proximal sensing, terrain analysis, and parent material information for available micronutrient prediction in tropical soils. Precision Agriculture, 2019, 20, 746-766.	6.0	15

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55	Tracing tropical soil parent material analysis via portable X-ray fluorescence (pXRF) spectrometry in Brazilian Cerrado. Geoderma, 2019, 337, 718-728.	5.1	58
56	Microbiological Indicators of Soil Quality Under Native Forests are Influenced by Topographic Factors. Anais Da Academia Brasileira De Ciencias, 2019, 91, e20180696.	0.8	4
57	Portable X-ray fluorescence (pXRF) spectrometry applied to the prediction of chemical attributes in Inceptisols under different land uses. Ciencia E Agrotecnologia, 2018, 42, 501-512.	1.5	32
58	Conditions affecting oxide quantification in unknown tropical soils via handheld X-ray fluorescence spectrometer. Soil Research, 2018, 56, 648.	1.1	11
59	Tropical soils characterization at low cost and time using portable X-ray fluorescence spectrometer (pXRF): Effects of different sample preparation methods. Ciencia E Agrotecnologia, 2018, 42, 80-92.	1.5	35
60	Soil weathering analysis using a portable X-ray fluorescence (PXRF) spectrometer in an Inceptisol from the Brazilian Cerrado. Applied Clay Science, 2018, 162, 27-37.	5.2	53
61	Knowledge-based digital soil mapping for predicting soil properties in two representative watersheds. Scientia Agricola, 2018, 75, 144-153.	1.2	13
62	Similar Soils but Different Soil-Forming Factors: Converging Evolution of Inceptisols in Brazil. Pedosphere, 2017, 27, 747-757.	4.0	8
63	Portable X-ray fluorescence (pXRF) applications in tropical Soil Science. Ciencia E Agrotecnologia, 2017, 41, 245-254.	1.5	56
64	Multiple linear regression and random forest to predict and map soil properties using data from portable X-ray fluorescence spectrometer (pXRF). Ciencia E Agrotecnologia, 2017, 41, 648-664.	1.5	65
65	Land-use effect on hydropedology in a mountainous region of Southeastern Brazil. Ciencia E Agrotecnologia, 2017, 41, 413-427.	1.5	11
66	Urochloa decumbens growth and P uptake as affected by long-term phosphate fertilization, mycorrhizal inoculation and historical land use in contrasting Oxisols of the Brazilian Cerrado. Ciencia E Agrotecnologia, 2017, 41, 209-219.	1.5	1
67	Geomorphometric tool associated with soil types and properties spatial variability at watersheds under tropical conditions. Scientia Agricola, 2016, 73, 363-370.	1.2	10
68	Proximal Sensing and Digital Terrain Models Applied to Digital Soil Mapping and Modeling of Brazilian Latosols (Oxisols). Remote Sensing, 2016, 8, 614.	4.0	52
69	Mapping soils in two watersheds using legacy data and extrapolation for similar surrounding areas. Ciencia E Agrotecnologia, 2016, 40, 534-546.	1.5	23
70	Root spatial distribution in coffee plants of different ages under conservation management system. African Journal of Agricultural Research Vol Pp, 2016, 11, 4970-4978.	0.5	9
71	Spatial prediction of soil properties in two contrasting physiographic regions in Brazil. Scientia Agricola, 2016, 73, 274-285.	1.2	21
72	Retrieving pedologist's mental model from existing soil map and comparing data mining tools for refining a larger area map under similar environmental conditions in Southeastern Brazil. Geoderma, 2016, 267, 65-77.	5.1	36

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73	Long-term phosphate fertilization, mycorrhizal inoculation and historical land use influence on soybean growth and P uptake. Ciencia E Agrotecnologia, 2016, 40, 418-431.	1.5	2
74	Xanthic- and Rhodic-Acrudoxes under cerrado vegetation: differential internal drainage and covarying micromorphological properties. Ciencia E Agrotecnologia, 2016, 40, 443-453.	1.5	8
75	Land suitability for final waste disposal with emphasis on septic systems installation in southern Minas Gerais, Brazil. Ciencia E Agrotecnologia, 2016, 40, 37-45.	1.5	1
76	Carbon pool ratios as scientific support to field morphology in the differentiation of dark subsurface soil horizons. Scientia Agricola, 2015, 72, 334-342.	1.2	2
77	Evaluation of Conditioned Latin Hypercube Sampling as a Support for Soil Mapping and Spatial Variability of Soil Properties. Soil Science Society of America Journal, 2015, 79, 603-611.	2.2	18
78	PEDOTRANSFER FUNCTIONS FOR WATER RETENTION IN THE MAIN SOILS FROM THE BRAZILIAN COASTAL PLAINS. Ciencia E Agrotecnologia, 2015, 39, 331-338.	1.5	6
79	Solum depth spatial prediction comparing conventional with knowledge-based digital soil mapping approaches. Scientia Agricola, 2014, 71, 316-323.	1.2	32
80	Soil moisture assessed by digital mapping techniques and its field validation. Ciencia E Agrotecnologia, 2014, 38, 140-148.	1.5	9
81	A Technique for Low Cost Soil Mapping and Validation Using Expert Knowledge on a Watershed in Minas Gerais, Brazil. Soil Science Society of America Journal, 2014, 78, 1310-1319.	2.2	20
82	Detailed soil survey of an experimental watershed representative of the Brazilian Coastal Plains and its practical application. Ciencia E Agrotecnologia, 2014, 38, 50-60.	1.5	8
83	Digital soil mapping approach based on fuzzy logic and field expert knowledge. Ciencia E Agrotecnologia, 2013, 37, 287-298.	1.5	26
84	Pedotransfer functions for water retention in different soil classes from the center-southern Rio Grande do Sul State. Ciencia E Agrotecnologia, 2013, 37, 49-60.	1.5	9
85	MACRO simulator (version 5.0) for predicting atrazine herbicide behavior in brazilian latosols. Ciencia E Agrotecnologia, 2013, 37, 211-220.	1.5	3
86	FraÃSões de carbono em topossequências de solos sob eucalipto com diferentes históricos de uso. Revista Brasileira De Ciencia Do Solo, 2012, 36, 1167-1178.	1.3	8
87	Correcting field determination of elemental contents in soils via portable X-ray fluorescence spectrometry. Ciencia E Agrotecnologia, 0, 44, .	1.5	8
88	Study of an abnormal occurrence of Oxisols in strongly undulated relief in the south of Minas Gerais, Brazil, with support of pXRF and geomorphology. Ciencia E Agrotecnologia, 0, 45, .	1.5	2
89	Pedology-based management class establishment: a study case in Brazilian coffee crops. Precision Agriculture, 0 , 1 .	6.0	1