Roberto Quiroz

List of Publications by Year
in descending order

79 papers	2,753 citations	182225 30 h-index	223390 49 g-index
81 all docs	81 docs citations	81 times ranked	4052 citing authors

#	Article	IF	Citations
1	Canopy Temperature as a Key Physiological Trait to Improve Yield Prediction under Water Restrictions in Potato. Agronomy, 2021, 11, 1436.	1.3	7
2	Development of low-cost remote sensing tools and methods for supporting smallholder agriculture. Applied Geomatics, 2020, 12, 247-263.	1.2	29
3	Unraveling Ecophysiological Mechanisms in Potatoes under Different Irrigation Methods: A Preliminary Field Evaluation. Agronomy, 2020, 10, 827.	1.3	8
4	Radiation Interception, Conversion and Partitioning Efficiency in Potato Landraces: How Far Are We from the Optimum?. Plants, 2020, 9, 787.	1.6	6
5	CGIAR modeling approaches for resource-constrained scenarios: I. Accelerating crop breeding for a changing climate. Crop Science, 2020, 60, 547-567.	0.8	45
6	Development of an Open-Source Thermal Image Processing Software for Improving Irrigation Management in Potato Crops (Solanum tuberosum L.). Sensors, 2020, 20, 472.	2.1	19
7	Modelling strategies for assessing and increasing the effectiveness of new phenotyping techniques in plant breeding. Plant Science, 2019, 282, 23-39.	1.7	173
8	Combining reference trials, farm surveys and mathematical models to assess carbon footprint and mitigation measures in tropical agriculture. Annals of Agricultural Sciences, 2019, 64, 188-195.	1.1	2
9	Infrared Radiometry as a Tool for Early Water Deficit Detection: Insights into Its Use for Establishing Irrigation Calendars for Potatoes Under Humid Conditions. Potato Research, 2019, 62, 109-122.	1.2	15
10	Quantifying soil carbon stocks and humification through spectroscopic methods: A scoping assessment in EMBU-Kenya. Journal of Environmental Management, 2019, 234, 476-483.	3.8	9
11	A new assessment in total and extreme rainfall trends over central and southern Peruvian Andes during 1965–2010. International Journal of Climatology, 2018, 38, e998.	1.5	23
12	Preliminary Evidence of Nocturnal Transpiration and Stomatal Conductance in Potato and their Interaction with Drought and Yield. American Journal of Potato Research, 2018, 95, 139-143.	0.5	10
13	Climate change impact on global potato production. European Journal of Agronomy, 2018, 100, 87-98.	1.9	143
14	How big is the potato (Solanum tuberosum L.) yield gap in Sub-Saharan Africa and why? A participatory approach. Open Agriculture, 2018, 3, 180-189.	0.7	33
15	Is Partial Root-Zone Drying More Appropriate than Drip Irrigation to Save Water in China? A Preliminary Comparative Analysis for Potato Cultivation. Potato Research, 2018, 61, 391-406.	1.2	15
16	A framework for scaling sustainable land management options. Land Degradation and Development, 2018, 29, 3272-3284.	1.8	34
17	Land Use Effects on Soil Fertility and Nutrient Cycling in the Peruvian High-Andean Puna Grasslands. Soil Science Society of America Journal, 2018, 82, 463-474.	1.2	15
18	Impact of climate change on the potato crop and biodiversity in its center of origin. Open Agriculture, 2018, 3, 273-283.	0.7	38

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19	Performance of the SUBSTOR-potato model across contrasting growing conditions. Field Crops Research, 2017, 202, 57-76.	2.3	75
20	Emission factors of particulate matter, polycyclic aromatic hydrocarbons, and levoglucosan from wood combustion in south-central Chile. Journal of the Air and Waste Management Association, 2017, 67, 806-813.	0.9	20
21	Key ecosystem services and ecological intensification of agriculture in the tropical high-Andean Puna as affected by land-use and climate changes. Agriculture, Ecosystems and Environment, 2017, 236, 221-233.	2.5	81
22	Characterizing the diversity of sweetpotato through growth parameters and leaf traits: Precocity and light use efficiency as important ordination factors. South African Journal of Botany, 2017, 113, 192-199.	1.2	14
23	Soil organic carbon stocks and fractionation under different land uses in the Peruvian high-Andean Puna. Geoderma, 2017, 307, 65-72.	2.3	26
24	Improving potato cultivation using siphons for partial root-zone drying irrigation: A case study in the Blue Nile river basin, Ethiopia. Open Agriculture, 2017, 2, 255-259.	0.7	4
25	Linking process-based potato models with light reflectance data: Does model complexity enhance yield prediction accuracy?. European Journal of Agronomy, 2017, 82, 104-112.	1.9	20
26	A potato model intercomparison across varying climates and productivity levels. Global Change Biology, 2017, 23, 1258-1281.	4.2	90
27	Multifractal Downscaling of Rainfall Using Normalized Difference Vegetation Index (NDVI) in the Andes Plateau. PLoS ONE, 2017, 12, e0168982.	1.1	9
28	Roots, Tubers and Bananas: Planning and research for climate resilience. Open Agriculture, 2017, 2, 350-361.	0.7	20
29	Defining biological thresholds associated to plant water status for monitoring water restriction effects: Stomatal conductance and photosynthesis recovery as key indicators in potato. Agricultural Water Management, 2016, 177, 369-378.	2.4	49
30	Socio-economic Feasibility of Potato Cultivation in Andhra Pradesh, India. Potato Research, 2016, 59, 167-179.	1.2	3
31	Multiscale assessment of spatial precipitation variability over complex mountain terrain using a high€resolution spatiotemporal wavelet reconstruction method. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,198.	1.2	10
32	Is Discrimination of ^{13}C in Potato Leaflets and Tubers an Appropriate Trait to Describe Genotype Responses to Restrictive and Well€Watered Conditions?. Journal of Agronomy and Crop Science, 2015, 201, 410-418.	1.7	17
33	Spatial random downscaling of rainfall signals in Andean heterogeneous terrain. Nonlinear Processes in Geophysics, 2015, 22, 383-402.	0.6	11
34	Improving potato drought tolerance through the induction of long-term water stress memory. Plant Science, 2015, 238, 26-32.	1.7	73
35	Leaf greenness as a drought tolerance related trait in potato (Solanum tuberosum L.). Environmental and Experimental Botany, 2015, 110, 27-35.	2.0	95
36	Managing Potato Biodiversity to Cope with Frost Risk in the High Andes: A Modeling Perspective. PLoS ONE, 2014, 9, e81510.	1.1	34

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37	Drought and Heat Tolerance Evaluation in Potato (Solanum tuberosum L.). Potato Research, 2014, 57, 225-247.	1.2	28
38	Chlorophyll concentration in leaves is an indicator of potato tuber yield in water-shortage conditions. Scientia Horticulturae, 2014, 168, 202-209.	1.7	92
39	Potato, sweet potato, and yam models for climate change: A review. Field Crops Research, 2014, 166, 173-185.	2.3	77
40	YIELD AND NUTRIENT UPTAKE IN SWEET POTATO PLANTS GROWN WITH SALT AND WATER STRESS. Revista Chapingo, Serie Horticultura, 2014, XX, 19-28.	1.1	1
41	Effect of partial root-zone drying irrigation timing on potato tuber yield and water use efficiency. Agricultural Water Management, 2013, 123, 65-70.	2.4	70
42	Assessment and optimization of an ultrasound-assisted washing process using organic solvents for polychlorinated biphenyl-contaminated soil. Waste Management and Research, 2013, 31, 969-978.	2.2	2
43	Characterization of Peatland Soils from the High Andes through 13 C Nuclear Magnetic Resonance Spectroscopy. Soil Science Society of America Journal, 2013, 77, 673-679.	1.2	11
44	Partial root-zone drying irrigation and water utilization efficiency by the potato crop in semi-arid regions in China. Scientia Horticulturae, 2012, 134, 20-25.	1.7	44
45	Precipitation Characteristics of the South American Monsoon System Derived from Multiple Datasets. Journal of Climate, 2012, 25, 4600-4620.	1.2	46
46	TRMM rainfall correction over the Andean Plateau using wavelet multi-resolution analysis. International Journal of Remote Sensing, 2012, 33, 4583-4602.	1.3	43
47	Detection of bacterial wilt infection caused by Ralstonia solanacearum in potato (Solanum) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 2012, 13, 236-255.	3.1	17
48	TEMPORAL VARIATION OF PAHS IN SOILS FROM THE BIOBÃO REGION: CENTRAL SOUTHERN CHILE. Journal of the Chilean Chemical Society, 2011, 56, 571-573.	0.5	1
49	Carbohydrate metabolism and cell protection mechanisms differentiate drought tolerance and sensitivity in advanced potato clones (Solanum tuberosum L.). Functional and Integrative Genomics, 2011, 11, 275-291.	1.4	36
50	Improving daily rainfall estimation from NDVI using a wavelet transform. Environmental Modelling and Software, 2011, 26, 201-209.	1.9	62
51	Soil carbon stocks and stability across an altitudinal gradient in southern Peru. Journal of Soils and Water Conservation, 2011, 66, 213-220.	0.8	15
52	Spectroscopic Assessment of Soil Organic Matter in Wetlands from the High Andes. Soil Science Society of America Journal, 2010, 74, 2246-2253.	1.2	27
53	Applying Multifractal Analysis to Remotely Sensed Data for Assessing PYVV Infection in Potato (Solanum tuberosum L.) Crops. Remote Sensing, 2010, 2, 1197-1216.	1.8	11
54	Conservation and Cardamom Cultivation in Nature Reserve Buffer Zones in the East Usambara Mountains, Tanzania. Journal of Sustainable Forestry, 2010, 29, 696-715.	0.6	5

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55	Quantifying the expression of potato genetic diversity in the high Andes through growth analysis and modeling. Field Crops Research, 2010, 119, 135-144.	2.3	28
56	Characterizing water fingering phenomena in soils using magnetic resonance imaging and multifractal theory. Nonlinear Processes in Geophysics, 2009, 16, 159-168.	0.6	31
57	Assessing Potato Yellow Vein Virus (PYVV) infection using remotely sensed data. International Journal of Pest Management, 2009, 55, 251-256.	0.9	20
58	Sources of polycyclic aromatic hydrocarbons (PAHs) in sediments of the Biobio River in south central Chile. Environmental Chemistry Letters, 2009, 7, 133-139.	8.3	38
59	Spice crops agroforestry systems in the East Usambara Mountains, Tanzania: growth analysis. Agroforestry Systems, 2009, 76, 513-523.	0.9	23
60	MULTIFRACTAL CHARACTERIZATION OF SPATIAL INCOME CURDLING: THEORY AND APPLICATIONS. International Journal of Modeling, Simulation, and Scientific Computing, 2008, 11, 861-874.	0.9	1
61	Use of Visual Material for Eliciting Shepherds' Perceptions of Grassland in Highland Peru. Mountain Research and Development, 2007, 27, 146-152.	0.4	5
62	Ecoregional Research for Development. Advances in Agronomy, 2007, 93, 257-311.	2.4	17
63	Polycyclic aromatic hydrocarbons fluxes during the past 50 years observed in dated sediment cores from Andean mountain lakes in central south Chile. Ecotoxicology and Environmental Safety, 2006, 63, 52-60.	2.9	29
64	Pursuing the Millennium Development Goals in the Andean Altiplano. Mountain Research and Development, 2006, 26, 15-19.	0.4	3
65	Small Cardamomâ€"Precious for People, Harmful for Mountain Forests. Mountain Research and Development, 2006, 26, 131-137.	0.4	26
66	PAH fluxes in the Laja Lake of south central Chile Andes over the last 50 years: Evidence from a dated sediment core. Science of the Total Environment, 2005, 349, 150-160.	3.9	49
67	Socio-economic Comparison Between Traditional and Improved Cultivation Methods in Agroforestry Systems, East Usambara Mountains, Tanzania. Environmental Management, 2005, 36, 682-690.	1.2	33
68	Multifractal characterization of the spatial distribution of ulexite in a Bolivian salt flat. International Journal of Remote Sensing, 2005, 26, 615-627.	1.3	15
69	Understanding precipitation patterns and land use interaction in Tibet using harmonic analysis of SPOT VGTâ€‘S10 NDVI time series. International Journal of Remote Sensing, 2005, 26, 2281-2296.	1.3	70
70	Persistent toxic substances in soils and waters along an altitudinal gradient in the Laja River Basin, Central Southern Chile. Chemosphere, 2005, 58, 905-915.	4.2	92
71	Atmospheric transmissivity: distribution and empirical estimation around the central Andes. International Journal of Climatology, 2004, 24, 1121-1136.	1.5	46
72	Poverty and the Deterioration of Natural Soil Capital in the Peruvian Altiplano. Environment, Development and Sustainability, 2003, 5, 477-490.	2.7	11

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73	Is Poverty to Blame for Soil, Pasture and Forest Degradation in Peru's Altiplano?. World Development, 2003, 31, 1903-1919.	2.6	67
74	Quantifying energy dissipation by grazing animals in harsh environments. Journal of Theoretical Biology, 2003, 225, 351-359.	0.8	16
75	Multifractal Characterization of Soil Pore Systems. Soil Science Society of America Journal, 2003, 67, 1361-1369.	1.2	164
76	Tailoring agricultural extension to different production contexts: a user-friendly farm-household model to improve decision-making for participatory research. Agricultural Systems, 2001, 69, 183-198.	3.2	54
77	A simulation model of an alpaca system in the dry puna of the Andes. Agricultural Systems, 1994, 46, 205-225.	3.2	4
78	MIAMH, A predictive model of range ruminant diets in patchy environments. Agricultural Systems, 1993, 43, 381-395.	3.2	5
79	Selection among Nonlinear Models for Rate of Passage Studies in Ruminants. Journal of Animal Science, 1988, 66, 2977.	0.2	41