

Roberto Fritsche-neto

List of Publications by Year in descending order

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128
papers

2,148
citations

341340

20
h-index

372325

34
g-index

158
all docs

158
docs citations

158
times ranked

2864
citing authors

#	ARTICLE	IF	CITATIONS
1	SoilType: An R package to interplay soil characterization in plant science. <i>Agronomy Journal</i> , 2024, 116, 848-854.	1.9	3
2	Improving hybrid rice breeding programs via stochastic simulations: number of parents, number of hybrids, tester update, and genomic prediction of hybrid performance. <i>Theoretical and Applied Genetics</i> , 2024, 137, .	3.7	3
3	Deep purple - an open-pollinated variety to induce haploids in tropical maize. <i>Crop Breeding and Applied Biotechnology</i> , 2024, 24, .	0.4	0
4	Comparing strategies for genomic predictions in interspecific biparental populations: a case study with the <i>Rubus</i> genus. <i>Euphytica</i> , 2024, 220, .	1.2	0
5	Envirome-wide associations enhance multi-year genome-based prediction of historical wheat breeding data. <i>G3: Genes, Genomes, Genetics</i> , 2023, 13, .	1.9	15
6	Enviromic-based kernels may optimize resource allocation with multi-trait multi-environment genomic prediction for tropical Maize. <i>BMC Plant Biology</i> , 2023, 23, .	3.7	3
7	On the accuracy of threshold genomic prediction models for leaf miner and leaf rust resistance in arabica coffee. <i>Tree Genetics and Genomes</i> , 2023, 19, .	1.7	2
8	Genome-wide association analysis of hyperspectral reflectance data to dissect the genetic architecture of growth-related traits in maize under plant growth-promoting bacteria inoculation. <i>Plant Direct</i> , 2023, 7, .	2.0	3
9	Optimizing quantitative trait loci introgression in elite rice germplasms: Comparing methods and population sizes to develop new recipients via stochastic simulations. <i>Plant Breeding</i> , 2023, 142, 439-448.	1.8	1
10	Realized genetic gains via recurrent selection in a tropical maize haploid inducer population and optimizing simultaneous selection for the next cycles. <i>Crop Science</i> , 2023, 63, 2865-2876.	1.9	3
11	Population-tailored mock genome enables genomic studies in species without a reference genome. <i>Molecular Genetics and Genomics</i> , 2022, 297, 33-46.	2.1	4
12	Automated Machine Learning: A Case Study of Genomic Image-Based Prediction in Maize Hybrids. <i>Frontiers in Plant Science</i> , 2022, 13, 845524.	3.8	3
13	A low-cost greenhouse-based high-throughput phenotyping platform for genetic studies: A case study in maize under inoculation with plant growth-promoting bacteria. <i>The Plant Phenome Journal</i> , 2022, 5, .	2.2	12
14	Genome and Environment-Based Prediction Models and Methods of Complex Traits Incorporating Genotype × Environment Interaction. <i>Methods in Molecular Biology</i> , 2022, 2467, 245-283.	0.0	19
15	Enviromic prediction is useful to define the limits of climate adaptation: A case study of common bean in Brazil. <i>Field Crops Research</i> , 2022, 286, 108628.	5.2	20
16	Genotyping marker density and prediction models effects in long-term breeding schemes of cross-pollinated crops. <i>Theoretical and Applied Genetics</i> , 2022, 135, 4523-4539.	3.7	4
17	A novel way to validate UAS-based high-throughput phenotyping protocols using in silico experiments for plant breeding purposes. <i>Theoretical and Applied Genetics</i> , 2021, 134, 715-730.	3.7	6
18	Nonlinear kernels, dominance, and envirotyping data increase the accuracy of genome-based prediction in multi-environment trials. <i>Heredity</i> , 2021, 126, 92-106.	2.7	98

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19	<i>EnvRtype</i> : a software to interplay enviromics and quantitative genomics in agriculture. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	1.9	66
20	Impact of the complexity of genotype by environment and dominance modeling on the predictive accuracy of maize hybrids in multi-environment prediction models. <i>Euphytica</i> , 2021, 217, 1.	1.2	10
21	The Modern Plant Breeding Triangle: Optimizing the Use of Genomics, Phenomics, and Enviromics Data. <i>Frontiers in Plant Science</i> , 2021, 12, 651480.	3.8	153
22	Female reproductive organs of <i>Brassica napus</i> are more sensitive than male to transient heat stress. <i>Euphytica</i> , 2021, 217, 1.	1.2	3
23	Genome-wide association mapping reveals race-specific SNP markers associated with anthracnose resistance in carioca common beans. <i>PLoS ONE</i> , 2021, 16, e0251745.	2.5	5
24	Genome-Wide Association Study Reveals Genomic Regions Associated with Fusarium Wilt Resistance in Common Bean. <i>Genes</i> , 2021, 12, 765.	2.4	17
25	<i>CV-$\hat{\pm}$</i> : designing validations sets to increase the precision and enable multiple comparison tests in genomic prediction. <i>Euphytica</i> , 2021, 217, 1.	1.2	4
26	Improving the identification of haploid maize seeds using convolutional neural networks. <i>Crop Science</i> , 2021, 61, 2387-2397.	1.9	8
27	Optimizing Genomic-Enabled Prediction in Small-Scale Maize Hybrid Breeding Programs: A Roadmap Review. <i>Frontiers in Plant Science</i> , 2021, 12, 658267.	3.8	21
28	Introgression of Maize Diversity for Drought Tolerance: Subtropical Maize Landraces as Source of New Positive Variants. <i>Frontiers in Plant Science</i> , 2021, 12, 691211.	3.8	14
29	Association mapping reveals genomic regions associated with bienniality and resistance to biotic stresses in arabica coffee. <i>Euphytica</i> , 2021, 217, 1.	1.2	5
30	Soil-app: a tool for soil analysis interpretation. <i>Scientia Agricola</i> , 2021, 78, .	1.2	2
31	Enviromic Assembly Increases Accuracy and Reduces Costs of the Genomic Prediction for Yield Plasticity in Maize. <i>Frontiers in Plant Science</i> , 2021, 12, 717552.	3.8	29
32	On the genetic architecture in a public tropical maize panel of the symbiosis between corn and plant growth-promoting bacteria aiming to improve plant resilience. <i>Molecular Breeding</i> , 2021, 41, 1.	2.1	10
33	Enviromics: bridging different sources of data, building one framework. <i>Crop Breeding and Applied Biotechnology</i> , 2021, 21, .	0.4	16
34	A Heterochromatic Knob Reducing the Flowering Time in Maize. <i>Frontiers in Genetics</i> , 2021, 12, 799681.	2.3	0
35	Unravelling Rubber Tree Growth by Integrating GWAS and Biological Network-Based Approaches. <i>Frontiers in Plant Science</i> , 2021, 12, 768589.	3.8	16
36	Population structure analysis and identification of genomic regions under selection associated with low-nitrogen tolerance in tropical maize lines. <i>PLoS ONE</i> , 2020, 15, e0239900.	2.5	4

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37	The accuracy of different strategies for building training sets for genomic predictions in segregating soybean populations. <i>Crop Science</i> , 2020, 60, 3115-3126.	1.9	8
38	Optimization of UAS-based high-throughput phenotyping to estimate plant health and grain yield in sorghum. <i>The Plant Phenome Journal</i> , 2020, 3, e20010.	2.2	16
39	Using public databases for genomic prediction of tropical maize lines. <i>Plant Breeding</i> , 2020, 139, 697-707.	1.8	7
40	The effect of bienniality on genomic prediction of yield in arabica coffee. <i>Euphytica</i> , 2020, 216, 1.	1.2	21
41	On the usefulness of parental lines GWAS for predicting low heritability traits in tropical maize hybrids. <i>PLoS ONE</i> , 2020, 15, e0228724.	2.5	24
42	Genomic prediction enables early but low-intensity selection in soybean segregating progenies. <i>Crop Science</i> , 2020, 60, 1346-1361.	1.9	4
43	A new proposal for the m + a methodology in segregating populations of cowpea. <i>Bragantia</i> , 2020, 79, 242-249.	1.3	1
44	BeBreeder 2.0: A Web Application for Genetic Analyses in a Plant Breeding Context. <i>Crop Science</i> , 2019, 59, 1371-1373.	1.9	2
45	On the accuracy of genomic prediction models considering multi-trait and allele dosage in <i>Urochloa</i> spp. interspecific tetraploid hybrids. <i>Molecular Breeding</i> , 2019, 39, 1.	2.1	39
46	Effect of F1 and F2 generations on genetic variability and working steps of doubled haploid production in maize. <i>PLoS ONE</i> , 2019, 14, e0224631.	2.5	14
47	Additive and heterozygous (dis)advantage GWAS models reveal candidate genes involved in the genotypic variation of maize hybrids to <i>Azospirillum brasilense</i> . <i>PLoS ONE</i> , 2019, 14, e0222788.	2.5	20
48	Relative importance of gene effects for nitrogen-use efficiency in popcorn. <i>PLoS ONE</i> , 2019, 14, e0222726.	2.5	13
49	A sparse robust model for large scale multi-class classification based on K-SVCR. <i>Pattern Recognition Letters</i> , 2019, 117, 16-23.	4.5	9
50	Maize responsiveness to <i>Azospirillum brasilense</i> : Insights into genetic control, heterosis and genomic prediction. <i>PLoS ONE</i> , 2019, 14, e0217571.	2.5	20
51	Bayesian analysis and prediction of hybrid performance. <i>Plant Methods</i> , 2019, 15, 14.	4.5	46
52	Association mapping in common bean revealed regions associated with Anthracnose and Angular Leaf Spot resistance. <i>Scientia Agricola</i> , 2019, 76, 321-327.	1.2	19
53	Expected Genotype Quality and Diploidized Marker Data from Genotyping-by-Sequencing of <i>Urochloa</i> spp. Tetraploids. <i>Plant Genome</i> , 2019, 12, 1-9.	3.2	15
54	Genomic Selection in Rubber Tree Breeding: A Comparison of Models and Methods for Managing G×E Interactions. <i>Frontiers in Plant Science</i> , 2019, 10, 1353.	3.8	30

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55	Association Mapping Considering Allele Dosage: An Example of Forage Traits in an Interspecific Segmental Allotetraploid <i>Urochloa</i> spp. Panel. <i>Crop Science</i> , 2019, 59, 2062-2076.	1.9	5
56	Increasing accuracy and reducing costs of genomic prediction by marker selection. <i>Euphytica</i> , 2019, 215, 1.	1.2	28
57	Modeling copy number variation in the genomic prediction of maize hybrids. <i>Theoretical and Applied Genetics</i> , 2019, 132, 273-288.	3.7	21
58	Multi-objective optimized genomic breeding strategies for sustainable food improvement. <i>Heredity</i> , 2019, 122, 672-683.	2.7	83
59	Genomic-Enabled Prediction Kernel Models with Random Intercepts for Multi-environment Trials. G3: Genes, Genomes, Genetics, 2018, 8, 1347-1365.	1.9	33
60	Accuracy of genomic selection to predict maize single-crosses obtained through different mating designs. <i>Theoretical and Applied Genetics</i> , 2018, 131, 1153-1162.	3.7	58
61	Controlling population structure in the genomic prediction of tropical maize hybrids. <i>Molecular Breeding</i> , 2018, 38, 1.	2.1	16
62	Contribution of Additive and Dominance Effects on Agronomical and Nutritional Traits, and Multivariate Selection on <i>Urochloa</i> spp. Hybrids. <i>Crop Science</i> , 2018, 58, 2444-2458.	1.9	15
63	snpReady: a tool to assist breeders in genomic analysis. <i>Molecular Breeding</i> , 2018, 38, 1.	2.1	94
64	BGGE: A New Package for Genomic-Enabled Prediction Incorporating Genotype \times Environment Interaction Models. G3: Genes, Genomes, Genetics, 2018, 8, 3039-3047.	1.9	50
65	Yield components and reproductive, physiological, and root traits used in early selection for nitrogen use efficiency in corn. <i>Pesquisa Agropecuária Brasileira</i> , 2018, 53, 620-632.	0.9	0
66	Impact of Phenotypic Correction Method and Missing Phenotypic Data on Genomic Prediction of Maize Hybrids. <i>Crop Science</i> , 2018, 58, 1481-1491.	1.9	9
67	Genomic-Enabled Prediction in Maize Using Kernel Models with Genotype \times Environment Interaction. G3: Genes, Genomes, Genetics, 2017, 7, 1995-2014.	1.9	98
68	Multi-trait genomic prediction for nitrogen response indices in tropical maize hybrids. <i>Molecular Breeding</i> , 2017, 37, 1.	2.1	54
69	Association mapping for traits related to nitrogen use efficiency in tropical maize lines under field conditions. <i>Plant and Soil</i> , 2017, 421, 453-463.	3.7	32
70	Genomic Prediction of Autogamous and Allogamous Plants by SNPs and Haplotypes. <i>Crop Science</i> , 2017, 57, 2951-2958.	1.9	17
71	GGE Biplot projection in discriminating the efficiency of popcorn lines to use nitrogen. <i>Ciencia E Agrotecnologia</i> , 2017, 41, 22-31.	1.4	28
72	Tropical maize selection indexes genotypes for efficiency in use of nutrients: phosphorus. <i>Revista Ceres</i> , 2017, 64, 266-273.	0.4	3

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73	Accuracy and simultaneous selection gains for N-stress tolerance and N-use efficiency in maize tropical lines. <i>Scientia Agricola</i> , 2017, 74, 481-488.	1.2	14
74	Be-Breeder - an application for analysis of genomic data in plant breeding. <i>Crop Breeding and Applied Biotechnology</i> , 2017, 17, 54-58.	0.4	0
75	Be-Breeder - Learning: a new tool for teaching and learning plant breeding principles. <i>Crop Breeding and Applied Biotechnology</i> , 2016, 16, 240-245.	0.4	5
76	Genetic Vulnerability and the Relationship of Commercial Germplasms of Maize in Brazil with the Nested Association Mapping Parents. <i>PLoS ONE</i> , 2016, 11, e0163739.	2.5	8
77	Accuracy and genetic progress of agronomic traits in irrigated rice program in Brazil. <i>African Journal of Agricultural Research Vol Pp</i> , 2015, 10, 4032-4038.	0.5	5
78	An Unusual Case of Statin-Induced Myopathy: Anti-HMGCoA Necrotizing Autoimmune Myopathy. <i>Journal of General Internal Medicine</i> , 2015, 30, 1879-1883.	2.7	15
79	Root Phenomics. , 2015, , 49-66.		10
80	Early indirect selection for nitrogen use efficiency in maize. <i>Revista Ciencia Agronomica</i> , 2015, 46, .	0.3	3
81	Genes Prospection. , 2014, , 135-156.		1
82	Plant Breeding and Biotechnological Advances. , 2014, , 1-17.		3
83	Double Haploids. , 2014, , 201-224.		1
84	Omics: Opening up the "Black Box" of the Phenotype. , 2014, , 1-11.		2
85	Phenomics. , 2014, , 127-146.		1
86	Sete décadas de evolução do sistema produtivo da cultura do milho. <i>Revista Ceres</i> , 2014, 61, 819-828.	0.4	24
87	Index selection of tropical maize genotypes for nitrogen use efficiency. <i>Bragantia</i> , 2014, 73, 153-159.	1.3	7
88	Genetic responses of traits relationship to components of nitrogen and phosphorus use efficiency in maize. <i>Acta Scientiarum - Agronomy</i> , 2013, 35, .	0.4	11
89	Relationship between heterosis and genetic divergence for phosphorus use efficiency and its components in tropical maize. <i>Ciencia Rural</i> , 2013, 43, 60-65.	0.5	0
90	Relação entre os caracteres determinantes das eficiências no uso de nitrogênio e fósforo em milho. <i>Revista Ceres</i> , 2013, 60, 636-645.	0.4	4

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91	Genetic control of traits associated with phosphorus use efficiency in maize by REML/BLUP. Revista Ciencia Agronomica, 2013, 44, 554-563.	0.3	9
92	Eficiência na absorção e utilização de nitrogênio e atividade enzimática em genótipos de milho. Revista Ciencia Agronomica, 2013, 44, 614-621.	0.3	6
93	Updating the ranking of the coefficients of variation from maize experiments. Acta Scientiarum - Agronomy, 2012, 34, .	0.4	28
94	Genome-Wide Selection for tropical maize root traits under conditions of nitrogen and phosphorus stress. Acta Scientiarum - Agronomy, 2012, 34, .	0.4	10
95	Breeding for Nematode Resistance. , 2012, , 81-102.		2
96	Breeding for Weed Management. , 2012, , 137-164.		1
97	Challenges for Plant Breeding to Develop Biotic-Resistant Cultivars. , 2012, , 1-11.		0
98	Contribution of the universities to the development of field crop cultivars. Crop Breeding and Applied Biotechnology, 2012, 12, 121-130.	0.4	3
99	Seleção genética ampla e novos métodos de melhoramento do milho. Revista Ceres, 2012, 59, 794-802.	0.4	14
100	Contribuição genética na produtividade do arroz irrigado em Minas Gerais no período de 1998 a 2010. Bragantia, 2012, 71, 460-466.	1.3	8
101	Abiotic Stresses: Challenges for Plant Breeding in the Coming Decades. , 2012, , 1-12.		4
102	Breeding for Stress-Tolerance or Resource-Use Efficiency?. , 2012, , 13-19.		9
103	Breeding for Nitrogen Use Efficiency. , 2012, , 53-65.		9
104	Breeding for Water Use Efficiency. , 2012, , 87-102.		4
105	Efeitos genéticos de caracteres associados à eficiência no uso de nitrogênio em milho. Pesquisa Agropecuaria Brasileira, 2012, 47, 385-392.	0.9	26
106	Adaptabilidade e estabilidade de populações de cenoura. Horticultura Brasileira, 2012, 30, 80-83.	0.5	9
107	Índice de seleção para cultivares de milho com dupla aptidão: minimilho e milho verde. Bragantia, 2011, 70, 781-787.	1.3	19
108	The difference between breeding for nutrient use efficiency and for nutrient stress tolerance. Crop Breeding and Applied Biotechnology, 2011, 11, 270-275.	0.4	24

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109	Repeatability and number of growing seasons for the selection of custard apple progenies. <i>Crop Breeding and Applied Biotechnology</i> , 2011, 11, 59-65.	0.4	1
110	De novo chromosomal translocation t(3;5)(q13;q35) in an infertile man. <i>Andrologia</i> , 2011, 43, 428-430.	2.1	4
111	Herança de caracteres associados à eficiência de utilização do fósforo em milho. <i>Pesquisa Agropecuária Brasileira</i> , 2010, 45, 465-471.	0.9	24
112	Factor analysis and SREG GGE biplot for the genotype × environment interaction stratification in maize. <i>Ciencia Rural</i> , 2010, 40, 1043-1048.	0.5	8
113	Repetibilidade e importância de caracteres para avaliação de coleção ativa de germoplasma de batata. <i>Horticultura Brasileira</i> , 2009, 27, 209-293.	0.5	1
114	Estimativa de capacidades de combinação em gerações iniciais de seleção de batata. <i>Horticultura Brasileira</i> , 2009, 27, 275-279.	0.5	2
115	Enraizamento de estacas herbáceas de mirtilo: influência da lesão na base e do ácido indolbutírico. <i>Ciencia E Agrotecnologia</i> , 2008, 32, 402-406.	1.4	22
116	Métodos de avaliação de plên e influência do ácido giberélico em cruzamentos de batata. <i>Ciencia E Agrotecnologia</i> , 2008, 32, 469-473.	1.4	0
117	Importância de caracteres na dissimilaridade de progênies de batata em gerações iniciais de seleção. <i>Bragantia</i> , 2008, 67, 141-144.	1.3	7
118	Seleção para caracteres componentes de aparência e rendimento de tubérculo em plântulas de batata. <i>Horticultura Brasileira</i> , 2008, 26, 325-329.	0.5	4
119	Consistency of two stability analysis methods in potatoes. <i>Ciencia Rural</i> , 2007, 37, 656-661.	0.5	4
120	Genótipos de batata com baixo teor de açúcares redutores. <i>Horticultura Brasileira</i> , 2007, 25, 220-223.	0.5	9
121	Correlações entre caracteres de aparência e rendimento e análise de trilha para aparência de batata. <i>Bragantia</i> , 2007, 66, 381-388.	1.3	17
122	Processing, Distribution, and Function of VGF, a Neuronal and Endocrine Peptide Precursor. <i>Cellular and Molecular Neurobiology</i> , 2004, 24, 517-533.	3.3	132
123	Optothermal transient emission radiometry for studying the changes in epidermal hydration induced during ripening of tomato fruit mutants. <i>Applied Physics B: Lasers and Optics</i> , 2004, 79, 793-797.	2.1	5
124	Turnover of dimethylsulfoniopropionate (DMSP) by the purple sulfur bacterium <i>Thiocapsa roseopersicina</i> M11: ecological implications. <i>FEMS Microbiology Ecology</i> , 1998, 27, 281-289.	2.8	1
125	Regulation of renal atrial natriuretic peptide receptors in pregnant sheep. <i>Endocrinology</i> , 1995, 136, 4565-4571.	2.8	4
126	Editorial: Enviromics in Plant Breeding. <i>Frontiers in Plant Science</i> , 0, 13, .	3.8	6

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127	Partial Least Squares Enhances Genomic Prediction of New Environments. <i>Frontiers in Genetics</i> , 0, 13, .	2.3	13
128	Elite germplasm introduction, training set composition, and genetic optimization algorithms effect on genomic selection-based breeding programs. <i>Crop Science</i> , 0, , .	1.9	0