Roberto Fritsche-neto

List of Publications by Year
in descending order

128	2,148	341340	372325
papers	citations	20 h-index	34 g-index

158	158	158	2864
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Modern Plant Breeding Triangle: Optimizing the Use of Genomics, Phenomics, and Enviromics Data. Frontiers in Plant Science, 2021, 12, 651480.	3.8	153
2	Processing, Distribution, and Function of VGF, a Neuronal and Endocrine Peptide Precursor. Cellular and Molecular Neurobiology, 2004, 24, 517-533.	3.3	132
3	Genomic-Enabled Prediction in Maize Using Kernel Models with Genotype Ã— Environment Interaction. G3: Genes, Genomes, Genetics, 2017, 7, 1995-2014.	1.9	98
4	Nonlinear kernels, dominance, and envirotyping data increase the accuracy of genome-based prediction in multi-environment trials. Heredity, 2021, 126, 92-106.	2.7	98
5	snpReady: a tool to assist breeders in genomic analysis. Molecular Breeding, 2018, 38, 1.	2.1	94
6	Multi-objective optimized genomic breeding strategies for sustainable food improvement. Heredity, 2019, 122, 672-683.	2.7	83
7	EnvRtype: a software to interplay enviromics and quantitative genomics in agriculture. G3: Genes, Genomes, Genetics, 2021, 11, .	1.9	66
8	Accuracy of genomic selection to predict maize single-crosses obtained through different mating designs. Theoretical and Applied Genetics, 2018, 131, 1153-1162.	3.7	58
9	Multi-trait genomic prediction for nitrogen response indices in tropical maize hybrids. Molecular Breeding, 2017, 37, 1.	2.1	54
10	BGGE: A New Package for Genomic-Enabled Prediction Incorporating Genotype Ã— Environment Interaction Models. G3: Genes, Genomes, Genetics, 2018, 8, 3039-3047.	1.9	50
11	Bayesian analysis and prediction of hybrid performance. Plant Methods, 2019, 15, 14.	4.5	46
12	On the accuracy of genomic prediction models considering multi-trait and allele dosage in Urochloa spp. interspecific tetraploid hybrids. Molecular Breeding, 2019, 39, 1.	2.1	39
13	Genomic-Enabled Prediction Kernel Models with Random Intercepts for Multi-environment Trials. G3: Genes, Genomes, Genetics, 2018, 8, 1347-1365.	1.9	33
14	Association mapping for traits related to nitrogen use efficiency in tropical maize lines under field conditions. Plant and Soil, 2017, 421, 453-463.	3.7	32
15	Genomic Selection in Rubber Tree Breeding: A Comparison of Models and Methods for Managing GÃ—E Interactions. Frontiers in Plant Science, 2019, 10, 1353.	3.8	30
16	Enviromic Assembly Increases Accuracy and Reduces Costs of the Genomic Prediction for Yield Plasticity in Maize. Frontiers in Plant Science, 2021, 12, 717552.	3.8	29
17	Updating the ranking of the coefficients of variation from maize experiments. Acta Scientiarum - Agronomy, 2012, 34, .	0.4	28
18	GGE Biplot projection in discriminating the efficiency of popcorn lines to use nitrogen. Ciencia E Agrotecnologia, 2017, 41, 22-31.	1.4	28

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19	Increasing accuracy and reducing costs of genomic prediction by marker selection. Euphytica, 2019, 215, 1.	1.2	28
20	Efeitos gÃªnicos de caracteres associados Ã eficiÃªncia no uso de nitrogÃªnio em milho. Pesquisa Agropecuaria Brasileira, 2012, 47, 385-392.	0.9	26
21	HeranÃ§a de caracteres associados Ã eficiÃªncia de utilizaÃ§Ã£o do fÃ³sforo em milho. Pesquisa Agropecuaria Brasileira, 2010, 45, 465-471.	0.9	24
22	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
23	On the usefulness of parental lines GWAS for predicting low heritability traits in tropical maize hybrids. PLoS ONE, 2020, 15, e0228724.	2.5	24
24	Sete dÃ©cadas de evoluÃ§Ã£o do sistema produtivo da cultura do milho. Revista Ceres, 2014, 61, 819-828.	0.4	24
25	Enraizamento de estacas herbÃ¡ceas de mirtilo: influÃªncia da lesÃ£o na base e do Ã¡cido indolbutÃrico. Ciencia E Agrotecnologia, 2008, 32, 402-406.	1.4	22
26	Modeling copy number variation in the genomic prediction of maize hybrids. Theoretical and Applied Genetics, 2019, 132, 273-288.	3.7	21
27	The effect of bienniality on genomic prediction of yield in arabica coffee. Euphytica, 2020, 216, 1.	1.2	21
28	Optimizing Genomic-Enabled Prediction in Small-Scale Maize Hybrid Breeding Programs: A Roadmap Review. Frontiers in Plant Science, 2021, 12, 658267.	3.8	21
29	Additive and heterozygous (dis)advantage GWAS models reveal candidate genes involved in the genotypic variation of maize hybrids to Azospirillum brasilense. PLoS ONE, 2019, 14, e0222788.	2.5	20
30	Maize responsiveness to Azospirillum brasilense: Insights into genetic control, heterosis and genomic prediction. PLoS ONE, 2019, 14, e0217571.	2.5	20
31	Enviromic prediction is useful to define the limits of climate adaptation: A case study of common bean in Brazil. Field Crops Research, 2022, 286, 108628.	5.2	20
32	Ãndice de seleÃ§Ã£o para cultivares de milho com dupla aptidÃ£o: minimilho e milho verde. Bragantia, 2011, 70, 781-787.	1.3	19
33	Association mapping in common bean revealed regions associated with Anthracnose and Angular Leaf Spot resistance. Scientia Agricola, 2019, 76, 321-327.	1.2	19
34	Genome and EnvironmentÂBased Prediction Models and Methods of Complex Traits Incorporating Genotype Ã— Environment Interaction. Methods in Molecular Biology, 2022, 2467, 245-283.	0.0	19
35	Genomic Prediction of Autogamous and Allogamous Plants by SNPs and Haplotypes. Crop Science, 2017, 57, 2951-2958.	1.9	17
36	Genome-Wide Association Study Reveals Genomic Regions Associated with Fusarium Wilt Resistance in Common Bean. Genes, 2021, 12, 765.	2.4	17

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37	CorrelaÃ§Ãµes entre caracteres de aparÃªncia e rendimento e anÃ¡lise de trilha para aparÃªncia de batata. Bragantia, 2007, 66, 381-388.	1.3	17
38	Controlling population structure in the genomic prediction of tropical maize hybrids. Molecular Breeding, 2018, 38, 1.	2.1	16
39	Optimization of UASâ€based highâ€throughput phenotyping to estimate plant health and grain yield in sorghum. The Plant Phenome Journal, 2020, 3, e20010.	2.2	16
40	Enviromics: bridging different sources of data, building one framework. Crop Breeding and Applied Biotechnology, 2021, 21, .	0.4	16
41	Unravelling Rubber Tree Growth by Integrating GWAS and Biological Network-Based Approaches. Frontiers in Plant Science, 2021, 12, 768589.	3.8	16
42	An Unusual Case of Statin-Induced Myopathy: Anti-HMGCoA Necrotizing Autoimmune Myopathy. Journal of General Internal Medicine, 2015, 30, 1879-1883.	2.7	15
43	Contribution of Additive and Dominance Effects on Agronomical and Nutritional Traits, and Multivariate Selection on Urochloa spp. Hybrids. Crop Science, 2018, 58, 2444-2458.	1.9	15
44	Expected Genotype Quality and Diploidized Marker Data from Genotypingâ€byâ€Sequencing of Urochloa spp. Tetraploids. Plant Genome, 2019, 12, 1-9.	3.2	15
45	Envirome-wide associations enhance multi-year genome-based prediction of historical wheat breeding data. G3: Genes, Genomes, Genetics, 2023, 13, .	1.9	15
46	SeleÃ§Ã£o genÃ´mica ampla e novos mÃ©todos de melhoramento do milho. Revista Ceres, 2012, 59, 794-802.	0.4	14
47	Effect of F1 and F2 generations on genetic variability and working steps of doubled haploid production in maize. PLoS ONE, 2019, 14, e0224631.	2.5	14
48	Introgression of Maize Diversity for Drought Tolerance: Subtropical Maize Landraces as Source of New Positive Variants. Frontiers in Plant Science, 2021, 12, 691211.	3.8	14
49	Accuracy and simultaneous selection gains for N-stress tolerance and N-use efficiency in maize tropical lines. Scientia Agricola, 2017, 74, 481-488.	1.2	14
50	Relative importance of gene effects for nitrogen-use efficiency in popcorn. PLoS ONE, 2019, 14, e0222726.	2.5	13
51	Partial Least Squares Enhances Genomic Prediction of New Environments. Frontiers in Genetics, 0, 13, .	2.3	13
52	A lowâ€cost greenhouseâ€based highâ€throughput phenotyping platform for genetic studies: A case study in maize under inoculation with plant growthâ€promoting bacteria. The Plant Phenome Journal, 2022, 5, .	2.2	12
53	Genetic responses of traits relationship to components of nitrogen and phosphorus use efficiency in maize. Acta Scientiarum - Agronomy, 2013, 35, .	0.4	11
54	Genome-Wide Selection for tropical maize root traits under conditions of nitrogen and phosphorus stress. Acta Scientiarum - Agronomy, 2012, 34, .	0.4	10

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55	Root Phenomics. , 2015, , 49-66.		10
56	Impact of the complexity of genotype by environment and dominance modeling on the predictive accuracy of maize hybrids in multi-environment prediction models. Euphytica, 2021, 217, 1.	1.2	10
57	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. Molecular Breeding, 2021, 41, 1.	2.1	10
58	GenÃ³tipos de batata com baixo teor de aÃ§Ãºcares redutores. Horticultura Brasileira, 2007, 25, 220-223.	0.5	9
59	Breeding for Stress-Tolerance or Resource-Use Efficiency?. , 2012, , 13-19.		9
60	Breeding for Nitrogen Use Efficiency. , 2012, , 53-65.		9
61	Impact of Phenotypic Correction Method and Missing Phenotypic Data on Genomic Prediction of Maize Hybrids. Crop Science, 2018, 58, 1481-1491.	1.9	9
62	A sparse robust model for large scale multi-class classification based on K-SVCR. Pattern Recognition Letters, 2019, 117, 16-23.	4.5	9
63	Adaptabilidade e estabilidade de populaÃ§Ãµes de cenoura. Horticultura Brasileira, 2012, 30, 80-83.	0.5	9
64	Genetic control of traits associated with phosphorus use efficiency in maize by REML/BLUP. Revista Ciencia Agronomica, 2013, 44, 554-563.	0.3	9
65	Factor analysis and SREG GGE biplot for the genotype Ã— environment interaction stratification in maize. Ciencia Rural, 2010, 40, 1043-1048.	0.5	8
66	ContribuiÃ§Ã£o genÃ©tica na produtividade do arroz irrigado em Minas Gerais no perÃodo de 1998 a 2010. Bragantia, 2012, 71, 460-466.	1.3	8
67	The accuracy of different strategies for building training sets for genomic predictions in segregating soybean populations. Crop Science, 2020, 60, 3115-3126.	1.9	8
68	Improving the identification of haploid maize seeds using convolutional neural networks. Crop Science, 2021, 61, 2387-2397.	1.9	8
69	Genetic Vulnerability and the Relationship of Commercial Germplasms of Maize in Brazil with the Nested Association Mapping Parents. PLoS ONE, 2016, 11, e0163739.	2.5	8
70	ImportÃ¢ncia de caracteres na dissimilaridade de progÃªnies de batata em geraÃ§Ãµes iniciais de seleÃ§Ã£o. Bragantia, 2008, 67, 141-144.	1.3	7
71	Using public databases for genomic prediction of tropical maize lines. Plant Breeding, 2020, 139, 697-707.	1.8	7
72	Index selection of tropical maize genotypes for nitrogen use efficiency. Bragantia, 2014, 73, 153-159.	1.3	7

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73	A novel way to validate UAS-based high-throughput phenotyping protocols using in silico experiments for plant breeding purposes. Theoretical and Applied Genetics, 2021, 134, 715-730.	3.7	6
74	EficiÃªncia na absorÃ§Ã£o e utilizaÃ§Ã£o de nitrogÃªnio e atividade enzimÃ¡tica em genÃ³tipos de milho. Revista Ciencia Agronomica, 2013, 44, 614-621.	0.3	6
75	Editorial: Enviromics in Plant Breeding. Frontiers in Plant Science, 0, 13, .	3.8	6
76	Optothermal transient emission radiometry for studying the changes in epidermal hydration induced during ripening of tomato fruit mutants. Applied Physics B: Lasers and Optics, 2004, 79, 793-797.	2.1	5
77	Accuracy and genetic progress of agronomic traits in irrigated rice program in Brazil. African Journal of Agricultural Research Vol Pp, 2015, 10, 4032-4038.	0.5	5
78	Be-Breeder - Learning: a new tool for teaching and learning plant breeding principles. Crop Breeding and Applied Biotechnology, 2016, 16, 240-245.	0.4	5
79	Association Mapping Considering Allele Dosage: An Example of Forage Traits in an Interspecific Segmental Allotetraploid Urochloa spp. Panel. Crop Science, 2019, 59, 2062-2076.	1.9	5
80	Genome-wide association mapping reveals race-specific SNP markers associated with anthracnose resistance in carioca common beans. PLoS ONE, 2021, 16, e0251745.	2.5	5
81	Association mapping reveals genomic regions associated with bienniality and resistance to biotic stresses in arabica coffee. Euphytica, 2021, 217, 1.	1.2	5
82	Consistency of two stability analysis methods in potatoes. Ciencia Rural, 2007, 37, 656-661.	0.5	4
83	De novo chromosomal translocation t(3;5)(q13;q35) in an infertile man. Andrologia, 2011, 43, 428-430.	2.1	4
84	Abiotic Stresses: Challenges for Plant Breeding in the Coming Decades. , 2012, , 1-12.		4
85	Breeding for Water Use Efficiency. , 2012, , 87-102.		4
86	Population structure analysis and identification of genomic regions under selection associated with low-nitrogen tolerance in tropical maize lines. PLoS ONE, 2020, 15, e0239900.	2.5	4
87	Genomic prediction enables early but lowâ€intensity selection in soybean segregating progenies. Crop Science, 2020, 60, 1346-1361.	1.9	4
88	CV-Î±: designing validations sets to increase the precision and enable multiple comparison tests in genomic prediction. Euphytica, 2021, 217, 1.	1.2	4
89	Regulation of renal atrial natriuretic peptide receptors in pregnant sheep. Endocrinology, 1995, 136, 4565-4571.	2.8	4
90	RelaÃ§Ã£o entre os caracteres determinantes das eficiÃªncias no uso de nitrogÃªnio e fÃ³sforo em milho. Revista Ceres, 2013, 60, 636-645.	0.4	4

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91	SeleÃ§Ã£o para caracteres componentes de aparÃªncia e rendimento de tubÃ©rculo em plÃ¢ntulas de batata. Horticultura Brasileira, 2008, 26, 325-329.	0.5	4
92	Population-tailored mock genome enables genomic studies in species without a reference genome. Molecular Genetics and Genomics, 2022, 297, 33-46.	2.1	4
93	Genotyping marker density and prediction models effects in long-term breeding schemes of cross-pollinated crops. Theoretical and Applied Genetics, 2022, 135, 4523-4539.	3.7	4
94	Contribution of the universities to the development of field crop cultivars. Crop Breeding and Applied Biotechnology, 2012, 12, 121-130.	0.4	3
95	Plant Breeding and Biotechnological Advances. , 2014, , 1-17.		3
96	Tropical maize selection indexes genotypes for efficiency in use of nutrients: phosphorus. Revista Ceres, 2017, 64, 266-273.	0.4	3
97	Female reproductive organs of Brassica napus are more sensitive than male to transient heat stress. Euphytica, 2021, 217, 1.	1.2	3
98	Early indirect selection for nitrogen use efficiency in maize. Revista Ciencia Agronomica, 2015, 46, .	0.3	3
99	Automated Machine Learning: A Case Study of Genomic â€œImage-Basedâ€•Prediction in Maize Hybrids. Frontiers in Plant Science, 2022, 13, 845524.	3.8	3
100	Enviromic-based kernels may optimize resource allocation with multi-trait multi-environment genomic prediction for tropical Maize. BMC Plant Biology, 2023, 23, .	3.7	3
101	Genomeâ€wide association analysis of hyperspectral reflectance data to dissect the genetic architecture of growthâ€related traits in maize under plant growthâ€promoting bacteria inoculation. Plant Direct, 2023, 7, .	2.0	3
102	SoilType: An R package to interplay soil characterization in plant science. Agronomy Journal, 2024, 116, 848-854.	1.9	3
103	Realized genetic gains via recurrent selection in a tropical maize haploid inducer population and optimizing simultaneous selection for the next cycles. Crop Science, 2023, 63, 2865-2876.	1.9	3
104	Improving hybrid rice breeding programs via stochastic simulations: number of parents, number of hybrids, tester update, and genomic prediction of hybrid performance. Theoretical and Applied Genetics, 2024, 137, .	3.7	3
105	Estimativa de capacidades de combinaÃ§Ã£o em geraÃ§Ãµes iniciais de seleÃ§Ã£o de batata. Horticultura Brasileira, 2009, 27, 275-279.	0.5	2
106	Breeding for Nematode Resistance. , 2012, , 81-102.		2
107	Omics: Opening up the â€œBlack Boxâ€•of the Phenotype. , 2014, , 1-11.		2
108	Beâ€Breeder 2.0: A Web Application for Genetic Analyses in a Plant Breeding Context. Crop Science, 2019, 59, 1371-1373.	1.9	2

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109	Soil-app: a tool for soil analysis interpretation. Scientia Agricola, 2021, 78, .	1.2	2
110	On the accuracy of threshold genomic prediction models for leaf miner and leaf rust resistance in arabica coffee. Tree Genetics and Genomes, 2023, 19, .	1.7	2
111	Repetibilidade e importÃ¢ncia de caracteres para avaliaÃ§Ã£o de coleÃ§Ã£o ativa de germoplasma de batata. Horticultura Brasileira, 2009, 27, 209-293.	0.5	1
112	Repeatability and number of growing seasons for the selection of custard apple progenies. Crop Breeding and Applied Biotechnology, 2011, 11, 59-65.	0.4	1
113	Breeding for Weed Management. , 2012, , 137-164.		1
114	Genes Prospection. , 2014, , 135-156.		1
115	Double Haploids. , 2014, , 201-224.		1
116	Phenomics. , 2014, , 127-146.		1
117	Turnover of dimethylsulfoniopropionate (DMSP) by the purple sulfur bacterium Thiocapsa roseopersicina M11: ecological implications. FEMS Microbiology Ecology, 1998, 27, 281-289.	2.8	1
118	A new proposal for the m + a methodology in segregating populations of cowpea. Bragantia, 2020, 79, 242-249.	1.3	1
119	Optimizing quantitative trait loci introgression in elite rice germplasms: Comparing methods and population sizes to develop new recipients via stochastic simulations. Plant Breeding, 2023, 142, 439-448.	1.8	1
120	MÃ©todos de avaliaÃ§Ã£o de pÃ³len e influÃªncia do Ã¡cido giberÃ©lico em cruzamentos de batata. Ciencia E Agrotecnologia, 2008, 32, 469-473.	1.4	0
121	Challenges for Plant Breeding to Develop Biotic-Resistant Cultivars. , 2012, , 1-11.		0
122	Relationship between heterosis and genetic divergence for phosphorus use efficiency and its components in tropical maize. Ciencia Rural, 2013, 43, 60-65.	0.5	0
123	Yield components and reproductive, physiological, and root traits used in early selection for nitrogen use efficiency in corn. Pesquisa Agropecuaria Brasileira, 2018, 53, 620-632.	0.9	0
124	Be-Breeder - an application for analysis of genomic data in plant breeding. Crop Breeding and Applied Biotechnology, 2017, 17, 54-58.	0.4	0
125	A Heterochromatic Knob Reducing the Flowering Time in Maize. Frontiers in Genetics, 2021, 12, 799681.	2.3	0
126	Deep purple - an open-pollinated variety to induce haploids in tropical maize. Crop Breeding and Applied Biotechnology, 2024, 24, .	0.4	0

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127	Comparing strategies for genomic predictions in interspecific biparental populations: a case study with the Rubus genus. Euphytica, 2024, 220, .	1.2	0
128	Elite germplasm introduction, training set composition, and genetic optimization algorithms effect on genomic selectionâ€based breeding programs. Crop Science, 0, , .	1.9	0