

# Carlos Guzman

## List of Publications by Year in descending order

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96  
papers

3,108  
citations

172457

29  
h-index

189892

50  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2713  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving grain yield, stress resilience and quality of bread wheat using large-scale genomics. <i>Nature Genetics</i> , 2019, 51, 1530-1539.	21.4	216
2	Genomic Selection for Processing and End-Use Quality Traits in the CIMMYT Spring Bread Wheat Breeding Program. <i>Plant Genome</i> , 2016, 9, plantgenome2016.01.0005.	2.8	161
3	Genomic Prediction of Gene Bank Wheat Landraces. <i>G3: Genes, Genomes, Genetics</i> , 2016, 6, 1819-1834.	1.8	159
4	Harnessing Diversity in Wheat to Enhance Grain Yield, Climate Resilience, Disease and Insect Pest Resistance and Nutrition Through Conventional and Modern Breeding Approaches. <i>Frontiers in Plant Science</i> , 2016, 7, 991.	3.6	143
5	Diversity analysis of 80,000 wheat accessions reveals consequences and opportunities of selection footprints. <i>Nature Communications</i> , 2020, 11, 4572.	12.8	129
6	Response to drought and heat stress on wheat quality, with special emphasis on bread-making quality, in durum wheat. <i>Field Crops Research</i> , 2016, 186, 157-165.	5.1	108
7	Variability in iron, zinc and phytic acid content in a worldwide collection of commercial durum wheat cultivars and the effect of reduced irrigation on these traits. <i>Food Chemistry</i> , 2017, 237, 499-505.	8.2	100
8	Wheat waxy proteins: polymorphism, molecular characterization and effects on starch properties. <i>Theoretical and Applied Genetics</i> , 2016, 129, 1-16.	3.6	87
9	Wheat quality improvement at CIMMYT and the use of genomic selection on it. <i>Applied &amp; Translational Genomics</i> , 2016, 11, 3-8.	2.1	79
10	Assessing Genetic Diversity to Breed Competitive Biofortified Wheat With Enhanced Grain Zn and Fe Concentrations. <i>Frontiers in Plant Science</i> , 2018, 9, 1971.	3.6	79
11	Unlocking the genetic diversity of Creole wheats. <i>Scientific Reports</i> , 2016, 6, 23092.	3.3	75
12	Use of wheat genetic resources to develop biofortified wheat with enhanced grain zinc and iron concentrations and desirable processing quality. <i>Journal of Cereal Science</i> , 2014, 60, 617-622.	3.7	73
13	Grain quality traits of commercial durum wheat varieties and their relationships with drought stress and glutenins composition. <i>Journal of Cereal Science</i> , 2017, 75, 1-9.	3.7	62
14	Milling, processing and end-use quality traits of CIMMYT spring bread wheat germplasm under drought and heat stress. <i>Field Crops Research</i> , 2018, 215, 104-112.	5.1	62
15	Genetic impact of Rht dwarfing genes on grain micronutrients concentration in wheat. <i>Field Crops Research</i> , 2017, 214, 373-377.	5.1	61
16	Deep Kernel for Genomic and Near Infrared Predictions in Multi-environment Breeding Trials. <i>G3: Genes, Genomes, Genetics</i> , 2019, 9, 2913-2924.	1.8	61
17	A new standard water absorption criteria based on solvent retention capacity (SRC) to determine dough mixing properties, viscoelasticity, and bread-making quality. <i>Journal of Cereal Science</i> , 2015, 66, 59-65.	3.7	60
18	Effect of drought and elevated temperature on grain zinc and iron concentrations in CIMMYT spring wheat. <i>Journal of Cereal Science</i> , 2016, 69, 182-186.	3.7	54

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19	Genotype x environment interaction and genetic gain for grain yield and grain quality traits in Turkish spring wheat released between 1964 and 2010. <i>PLoS ONE</i> , 2019, 14, e0219432.	2.5	54
20	Validation of Candidate Gene-Based Markers and Identification of Novel Loci for Thousand-Grain Weight in Spring Bread Wheat. <i>Frontiers in Plant Science</i> , 2019, 10, 1189.	3.6	54
21	Breeding-assisted genomics: Applying meta-GWAS for milling and baking quality in CIMMYT wheat breeding program. <i>PLoS ONE</i> , 2018, 13, e0204757.	2.5	50
22	Genetic improvement of grain quality traits for CIMMYT semi-dwarf spring bread wheat varieties developed during 1965–2015: 50 years of breeding. <i>Field Crops Research</i> , 2017, 210, 192-196.	5.1	48
23	CIMMYT Series on Carbohydrates, Wheat, Grains, and Health: Wheat-Based Foods: Their Global and Regional Importance in the Food Supply, Nutrition, and Health. <i>Cereal Foods World</i> , 2017, 62, 231-249.	0.2	48
24	Perspective: Whole and Refined Grains and Health—Evidence Supporting “Make Half Your Grains Whole”. <i>Advances in Nutrition</i> , 2020, 11, 492-506.	6.4	43
25	Interspecific and intergeneric hybridization as a source of variation for wheat grain quality improvement. <i>Theoretical and Applied Genetics</i> , 2018, 131, 225-251.	3.6	40
26	Strategies for Selecting Crosses Using Genomic Prediction in Two Wheat Breeding Programs. <i>Plant Genome</i> , 2017, 10, plantgenome2016.12.0128.	2.8	37
27	Waxy genes from spelt wheat: new alleles for modern wheat breeding and new phylogenetic inferences about the origin of this species. <i>Annals of Botany</i> , 2012, 110, 1161-1171.	2.9	36
28	Use of rapid tests to predict quality traits of CIMMYT bread wheat genotypes grown under different environments. <i>LWT - Food Science and Technology</i> , 2016, 69, 327-333.	5.2	36
29	Almond by-products: Extraction and characterization of phenolic compounds and evaluation of their potential use in composite dough with wheat flour. <i>LWT - Food Science and Technology</i> , 2018, 89, 299-306.	5.2	35
30	Drought and Heat Stress Impacts on Phenolic Acids Accumulation in Durum Wheat Cultivars. <i>Foods</i> , 2021, 10, 2142.	4.3	34
31	Nitrogen fertilizer placement and timing affects bread wheat ( <i>Triticum aestivum</i> ) quality and yield in an irrigated bed planting system. <i>Nutrient Cycling in Agroecosystems</i> , 2016, 106, 185-199.	2.2	28
32	Identification of CIMMYT spring bread wheat germplasm maintaining superior grain yield and quality under heat-stress. <i>Journal of Cereal Science</i> , 2020, 93, 102981.	3.7	28
33	Evaluation of Grain Yield and Quality Traits of Bread Wheat Genotypes Cultivated in Northwest Turkey. <i>Crop Science</i> , 2016, 56, 73-84.	1.8	27
34	Definition of the low molecular weight glutenin subunit gene family members in a set of standard bread wheat ( <i>Triticum aestivum</i> L.) varieties. <i>Journal of Cereal Science</i> , 2017, 74, 263-271.	3.7	27
35	Molecular characterisation of the Wx-B1 allelic variants identified in cultivated emmer wheat and comparison with those of durum wheat. <i>Molecular Breeding</i> , 2011, 28, 403-411.	2.1	26
36	Characterization of genetic diversity of puroindoline genes in Mexican wheat landraces. <i>Euphytica</i> , 2013, 190, 53-63.	1.2	25

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37	Genome-based prediction of multiple wheat quality traits in multiple years. <i>Plant Genome</i> , 2020, 13, e20034.	2.8	25
38	Molecular characterization of a novel waxy allele (Wx-A u 1a) from <i>Triticum urartu</i> Thum. ex Gandil.. <i>Genetic Resources and Crop Evolution</i> , 2012, 59, 971-979.	1.6	24
39	Sources of the highly expressed wheat bread making (wbm) gene in CIMMYT spring wheat germplasm and its effect on processing and bread-making quality. <i>Euphytica</i> , 2016, 209, 689-692.	1.2	24
40	Molecular Marker-Based Selection Tools in Spring Bread Wheat Improvement: CIMMYT Experience and Prospects. <i>Sustainable Development and Biodiversity</i> , 2016, , 421-474.	1.7	24
41	Molecular characterization and diversity of the Pina and Pinb genes in cultivated and wild diploid wheat. <i>Molecular Breeding</i> , 2012, 30, 69-78.	2.1	22
42	Variation in Spanish cultivated einkorn wheat ( <i>Triticum monococcum</i> L. ssp. <i>monococcum</i> ) as determined by morphological traits and waxy proteins. <i>Genetic Resources and Crop Evolution</i> , 2009, 56, 601-604.	1.6	21
43	Molecular characterization of a new waxy allele with partial expression in spelt wheat. <i>Planta</i> , 2012, 235, 1331-1339.	3.2	20
44	Molecular characterization of two novel null waxy alleles in Mexican bread wheat landraces. <i>Journal of Cereal Science</i> , 2015, 62, 8-14.	3.7	20
45	Nutritional quality characterization of a set of durum wheat landraces from Iran and Mexico. <i>LWT - Food Science and Technology</i> , 2020, 124, 109198.	5.2	20
46	Characterization of the Wx gene in diploid <i>Aegilops</i> species and its potential use in wheat breeding. <i>Genetic Resources and Crop Evolution</i> , 2014, 61, 369-382.	1.6	19
47	Molecular characterization of novel LMW-i glutenin subunit genes from <i>Triticum urartu</i> Thum. ex Gandil.. <i>Theoretical and Applied Genetics</i> , 2015, 128, 2155-2165.	3.6	19
48	Variability for Glutenins, Gluten Quality, Iron, Zinc and Phytic Acid in a Set of One Hundred and Fifty-Eight Common Wheat Landraces from Iran. <i>Agronomy</i> , 2020, 10, 1797.	3.0	19
49	Genetic improvement of wheat grain quality at CIMMYT. <i>Frontiers of Agricultural Science and Engineering</i> , 2019, 6, 265.	1.4	19
50	Effects of glutenins (Glu-1 and Glu-3) allelic variation on dough properties and bread-making quality of CIMMYT bread wheat breeding lines. <i>Field Crops Research</i> , 2022, 284, 108585.	5.1	19
51	Molecular characterization of waxy alleles in three subspecies of hexaploid wheat and identification of two novel Wx-B1 alleles. <i>Theoretical and Applied Genetics</i> , 2015, 128, 2427-2435.	3.6	17
52	Genetic variation for waxy proteins and amylose content in Spanish spelt wheat ( <i>Triticum spelta</i> L.). <i>Genetic Resources and Crop Evolution</i> , 2010, 57, 721-725.	1.6	16
53	SNPs and an insertion sequence in five Wx-A1 alleles as factors for variant Wx-A1 protein in wheat. <i>Euphytica</i> , 2013, 192, 325-338.	1.2	16
54	Yield and Quality in Purple-Grained Wheat Isogenic Lines. <i>Agronomy</i> , 2020, 10, 86.	3.0	16

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55	Gluten protein response to heat and drought stress in durum wheat as measured by reverse phase - High performance liquid chromatography. <i>Journal of Cereal Science</i> , 2021, 100, 103267.	3.7	16
56	Characterization of grain protein content gene (GPC-B1) introgression lines and its potential use in breeding for enhanced grain zinc and iron concentration in spring wheat. <i>Acta Physiologiae Plantarum</i> , 2017, 39, 1.	2.1	15
57	Allelic diversity and molecular characterization of puroindoline genes in five diploid species of the <i>Aegilops</i> genus. <i>Journal of Experimental Botany</i> , 2013, 64, 5133-5143.	4.8	14
58	Preliminary characterization for grain quality traits and high and low molecular weight glutenins subunits composition of durum wheat landraces from Iran and Mexico. <i>Journal of Cereal Science</i> , 2019, 88, 47-56.	3.7	14
59	Genome-wide association analysis for arabinoxylan content in common wheat ( <i>T. Aestivum</i> L.) flour. <i>Journal of Cereal Science</i> , 2021, 98, 103166.	3.7	14
60	Allelic Variation at Glutenin Loci (Glu-1, Glu-2 and Glu-3) in a Worldwide Durum Wheat Collection and Its Effect on Quality Attributes. <i>Foods</i> , 2021, 10, 2845.	4.3	14
61	Genomic Prediction and Genome-Wide Association Studies of Flour Yield and Alveograph Quality Traits Using Advanced Winter Wheat Breeding Material. <i>Genes</i> , 2019, 10, 669.	2.4	12
62	Diversity of phenotypic (plant and grain morphological) and genotypic (glutenin alleles in Glu-1 and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 Resources and Crop Evolution, 2016, 63, 465-475.	1.6	11
63	Recovery of Wheat Heritage for Traditional Food: Genetic Variation for High Molecular Weight Glutenin Subunits in Neglected/Underutilized Wheat. <i>Agronomy</i> , 2019, 9, 755.	3.0	11
64	Amylose content and starch properties in emmer and durum wheat lines with different waxy proteins composition. <i>Journal of the Science of Food and Agriculture</i> , 2011, 91, 1625-1629.	3.5	10
65	Assessment of the Glutenin Subunits Diversity in a Durum Wheat ( <i>T. turgidum</i> ssp. durum) Collection from Morocco. <i>Agronomy</i> , 2020, 10, 957.	3.0	10
66	Are the agronomic performance and grain quality characteristics of bread wheat Mediterranean landraces related to the climate prevalent in their area of origin?. <i>Journal of Cereal Science</i> , 2022, 105, 103478.	3.7	10
67	Molecular characterization of the <i>Glu-Ay</i> gene from <i>Triticum urartu</i> for its potential use in quality wheat breeding. <i>Plant Genetic Resources: Characterisation and Utilisation</i> , 2011, 9, 334-337.	0.8	9
68	Wx gene in diploid wheat: molecular characterization of five novel alleles from einkorn ( <i>Triticum</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	2.1	9
69	Endogenous arabinoxylans variability in refined wheat flour and its relationship with quality traits. <i>Journal of Cereal Science</i> , 2020, 95, 103062.	3.7	9
70	SNP markers for low molecular glutenin subunits (LMW-GSs) at the Glu-A3 and Glu-B3 loci in bread wheat. <i>PLoS ONE</i> , 2020, 15, e0233056.	2.5	9
71	Molecular characterisation of the amino- and carboxyl-domains in different Glu-A1x alleles of <i>Triticum urartu</i> Thum. ex Gandil.. <i>Theoretical and Applied Genetics</i> , 2013, 126, 1703-1711.	3.6	8
72	Genetic diversity and molecular characterization of puroindoline genes ( Pina-D1 and Pinb-D1 ) in bread wheat landraces from Andalusia (Southern Spain). <i>Journal of Cereal Science</i> , 2016, 71, 61-65.	3.7	8

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73	Genome-wide identification of bZIP transcription factor genes related to starch synthesis in barley ( <i>Hordeum vulgare</i> L.). <i>Genome</i> , 2021, 64, 1067-1080.	2.0	8
74	Solvent Retention Capacity and Gluten Protein Composition of Durum Wheat Flour as Influenced by Drought and Heat Stress. <i>Plants</i> , 2021, 10, 1000.	3.5	8
75	Strategic use of Iranian bread wheat landrace accessions for genetic improvement: Core set formulation and validation. <i>Plant Breeding</i> , 2021, 140, 87-99.	1.9	8
76	Identification and molecular characterization of novel LMW-m and -s glutenin genes, and a chimeric -m/i glutenin gene in 1A chromosome of three diploid <i>Triticum</i> species. <i>Journal of Cereal Science</i> , 2017, 74, 46-55.	3.7	7
77	Molecular characterization of two novel alleles of Hordoindoline genes in <i>Hordeum chilense</i> Roem. et Schult.. <i>Genetic Resources and Crop Evolution</i> , 2014, 61, 307-312.	1.6	6
78	Cultivar, Trait and Management System Selection to Improve Soft-Red Winter Wheat Productivity in the Eastern United States. <i>Frontiers in Plant Science</i> , 2020, 11, 335.	3.6	6
79	Puroindoline ( <i>Pina-D1</i> and <i>Pinb-D1</i> ) and waxy ( <i>Wx-1</i> ) genes in Iranian bread wheat ( <i>Triticum aestivum</i> L.) landraces. <i>Biotechnology and Biotechnological Equipment</i> , 2020, 34, 1019-1027.	1.3	5
80	New Findings in the Amino Acid Profile and Gene Expression in Contrasting Durum Wheat Gluten Strength Genotypes during Grain Filling. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 5521-5528.	5.2	5
81	Molecular characterization of several Wx alleles in durum wheat. <i>Biologia Plantarum</i> , 2015, 59, 220-226.	1.9	4
82	Unlocking the Patterns of the Tunisian Durum Wheat Landraces Genetic Structure Based on Phenotypic Characterization in Relation to Farmer's Vernacular Name. <i>Agronomy</i> , 2021, 11, 634.	3.0	4
83	Analysis of starch structure and functional properties of tetraploid wheat ( <i>Triticum</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Agriculture, 2022, 102, 5974-5983.	3.5	4
84	Wheat Quality. , 2022, , 177-193.		4
85	Potential Use of Wild Einkorn Wheat for Wheat Grain Quality Improvement: Evaluation and Characterization of Glu-1, Wx and Ha Loci. <i>Agronomy</i> , 2021, 11, 816.	3.0	3
86	Molecular characterization of five novel Wx-A1 alleles in common wheat including one silent allele by transposon insertion. <i>Plant Science</i> , 2021, 305, 110843.	3.6	3
87	A single base change at exon of Wx-A1 caused gene inactivation and starch properties modified in a wheat EMS mutant line. <i>Journal of the Science of Food and Agriculture</i> , 2021, , .	3.5	3
88	Do ancient wheats contain less gluten than modern bread wheat, in favour of better health?. <i>Nutrition Bulletin</i> , 2022, 47, 157-167.	1.8	3
89	Polymorphism of waxy proteins in Spanish hulled wheats. <i>Plant Genetic Resources: Characterisation and Utilisation</i> , 2011, 9, 330-333.	0.8	2
90	Characterization and sequence diversity of the Gsp-1 gene in diploid species of the <i>Aegilops</i> genus. <i>Journal of Cereal Science</i> , 2015, 63, 1-7.	3.7	2

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91	Molecular characterisation of novel LMW-m and LMW-s genes from four Aegilops species (Sitopsis) Tj ETQq1 1 0.784314 rgBT /Overl Science, 2016, 67, 938.	1.5	2
92	Phenolic Compounds in Wheat Kernels: Genetic and Genomic Studies of Biosynthesis and Regulations. , 2020, , 225-253.		2
93	Starch and Starch-Associated Proteins: Impacts on Wheat Grain Quality. , 2020, , 21-38.		2
94	Analysis of the starch properties in tetraploid wheatâ€“Aegilops sharonensis amphidiploid. Cereal Research Communications, 0, , 1.	1.6	1
95	Suitability of the current breadmaking quality test to predict the breadmaking potential of healthy bread formulations. Cereal Chemistry, 2021, 98, 1091-1100.	2.2	1
96	Ancient wheats role in sustainable wheat cultivation. , 2021, , 29-66.		1