Gloria M Coruzzi

List of Publications by Year
in descending order

135 papers	13,624 citations	17405 63 h-index	22764 112 g-index
146 all docs	146 docs citations	146 times ranked	11006 citing authors

#	Article	IF	Citations
1	A unified nomenclature of NITRATE TRANSPORTER 1/PEPTIDE TRANSPORTER family members in plants. Trends in Plant Science, 2014, 19, 5-9.	4.3	581
2	Cell-specific nitrogen responses mediate developmental plasticity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 803-808.	3.3	557
3	Nitrate-responsive miR393/ <i>AFB3</i> regulatory module controls root system architecture in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4477-4482.	3.3	556
4	Nitrate Transport, Sensing, and Responses in Plants. Molecular Plant, 2016, 9, 837-856.	3.9	427
5	Genomic Analysis of the Nitrate Response Using a Nitrate Reductase-Null Mutant of Arabidopsis. Plant Physiology, 2004, 136, 2512-2522.	2.3	396
6	Carbon and nitrogen sensing and signaling in plants: emerging â€˜matrix effectsâ€™. Current Opinion in Plant Biology, 2001, 4, 247-253.	3.5	386
7	Systems approach identifies an organic nitrogen-responsive gene network that is regulated by the master clock control gene <i>CCA1</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4939-4944.	3.3	333
8	Nitrogen economics of root foraging: Transitive closure of the nitrateâ€“cytokinin relay and distinct systemic signaling for N supply vs. demand. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18524-18529.	3.3	333
9	Glutamate-receptor genes in plants. Nature, 1998, 396, 125-126.	13.7	328
10	Nitrate signaling: adaptation to fluctuating environments. Current Opinion in Plant Biology, 2010, 13, 265-272.	3.5	319
11	Nitrogen and Carbon Nutrient and Metabolite Signaling in Plants. Plant Physiology, 2001, 125, 61-64.	2.3	316
12	Qualitative network models and genome-wide expression data define carbon/nitrogen-responsive molecular machines in Arabidopsis. Genome Biology, 2007, 8, R7.	13.9	289
13	A framework integrating plant growth with hormones and nutrients. Trends in Plant Science, 2011, 16, 178-182.	4.3	255
14	VirtualPlant: A Software Platform to Support Systems Biology Research Â Â. Plant Physiology, 2010, 152, 500-515.	2.3	254
15	Use of Arabidopsis mutants and genes to study amide amino acid biosynthesis.. Plant Cell, 1995, 7, 887-898.	3.1	249
16	Predictive network modeling of the high-resolution dynamic plant transcriptome in response to nitrate. Genome Biology, 2010, 11, R123.	13.9	241
17	Overexpression of Cytosolic Glutamine Synthetase. Relation to Nitrogen, Light, and Photorespiration. Plant Physiology, 2002, 129, 1170-1180.	2.3	239
18	A PII-like protein in Arabidopsis: Putative role in nitrogen sensing. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 13965-13970.	3.3	236

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19	Comparative Phylogenomics Uncovers the Impact of Symbiotic Associations on Host Genome Evolution. PLoS Genetics, 2014, 10, e1004487.	1.5	229
20	Metabolic Regulation of the Gene Encoding Glutamine-Dependent Asparagine Synthetase in Arabidopsis thaliana. Plant Physiology, 1994, 106, 1347-1357.	2.3	228
21	Reciprocal regulation of distinct asparagine synthetase genes by light and metabolites inArabidopsis thaliana. Plant Journal, 1998, 16, 345-353.	2.8	217
22	Arabidopsis mutant analysis and gene regulation define a nonredundant role for glutamate dehydrogenase in nitrogen assimilation.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 4718-4723.	3.3	214
23	Arabidopsis gls Mutants and Distinct Fd-GOGAT Genes: Implications for Photorespiration and Primary Nitrogen Assimilation. Plant Cell, 1998, 10, 741-752.	3.1	203
24	Nitrate in 2020: Thirty Years from Transport to Signaling Networks. Plant Cell, 2020, 32, 2094-2119.	3.1	203
25	Carbon and Amino Acids Reciprocally Modulate the Expression of Glutamine Synthetase in Arabidopsis. Plant Physiology, 1999, 121, 301-310.	2.3	202
26	AtNIGT1/HRS1 integrates nitrate and phosphate signals at the Arabidopsis root tip. Nature Communications, 2015, 6, 6274.	5.8	195
27	Overexpression of the ASN1 Gene Enhances Nitrogen Status in Seeds of Arabidopsis. Plant Physiology, 2003, 132, 926-935.	2.3	193
28	Molecular evolution of glutamate receptors: a primitive signaling mechanism that existed before plants and animals diverged. Molecular Biology and Evolution, 1999, 16, 826-838.	3.5	185
29	The Identity of Plant Glutamate Receptors. Science, 2001, 292, 1486b-1487.	6.0	175
30	Phylogenetic and Expression Analysis of the Glutamate-Receptorâ€"Like Gene Family in Arabidopsis thaliana. Molecular Biology and Evolution, 2002, 19, 1066-1082.	3.5	167
31	Genome-wide patterns of carbon and nitrogen regulation of gene expression validate the combined carbon and nitrogen (CN)-signaling hypothesis in plants. Genome Biology, 2004, 5, R91.	13.9	157
32	Hit-and-run transcriptional control by bZIP1 mediates rapid nutrient signaling in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10371-10376.	3.3	154
33	Temporal transcriptional logic of dynamic regulatory networks underlying nitrogen signaling and use in plants. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6494-6499.	3.3	150
34	A Functional Phylogenomic View of the Seed Plants. PLoS Genetics, 2011, 7, e1002411.	1.5	134
35	Gene regulatory networks in plants: learning causality from time and perturbation. Genome Biology, 2013, 14, 123.	3.8	115
36	The aspartate aminotransferase gene family of Arabidopsis encodes isoenzymes localized to three distinct subcellular compartments. Plant Journal, 1995, 7, 61-75.	2.8	111

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37	Arabidopsisglt1-T mutant defines a role for NADH-GOGAT in the non-photorespiratory ammonium assimilatory pathway. Plant Journal, 2002, 29, 347-358.	2.8	108
38	HIGH NITROGEN INSENSITIVE 9 (HNI9)-mediated systemic repression of root NO ₃ ^{âˆ’} uptake is associated with changes in histone methylation. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13329-13334.	3.3	108
39	Expression dynamics of the pea rbcS multigene family and organ distribution of the transcripts. EMBO Journal, 1986, 5, 2063-2071.	3.5	107
40	Correlation of ASN2 Gene Expression with Ammonium Metabolism in Arabidopsis. Plant Physiology, 2004, 134, 332-338.	2.3	105
41	Transient genome-wide interactions of the master transcription factor NLP7 initiate a rapid nitrogen-response cascade. Nature Communications, 2020, 11, 1157.	5.8	99
42	Integration of responses within and across <i>Arabidopsis</i> natural accessions uncovers loci controlling root systems architecture. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15133-15138.	3.3	93
43	Molecular biology of C4 photosynthesis in Zea mays: differential localization of proteins and mRNAs in the two leaf cell types. Plant Molecular Biology, 1984, 3, 431-444.	2.0	92
44	Network Walking charts transcriptional dynamics of nitrogen signaling by integrating validated and predicted genome-wide interactions. Nature Communications, 2019, 10, 1569.	5.8	92
45	The histone methyltransferase SDG8 mediates the epigenetic modification of light and carbon responsive genes in plants. Genome Biology, 2015, 16, 79.	3.8	91
46	OrthologID: automation of genome-scale ortholog identification within a parsimony framework. Bioinformatics, 2006, 22, 699-707.	1.8	89
47	Primary N-assimilation into Amino Acids in Arabidopsis. The Arabidopsis Book, 2003, 2, e0010.	0.5	88
48	Arabidopsis Mutants Resistant to S(+)-Î²-Methyl-Î±, Î²-Diaminopropionic Acid, a Cycad-Derived Glutamate Receptor Agonist. Plant Physiology, 2000, 124, 1615-1624.	2.3	87
49	Systems Biology for the Virtual Plant: Figure 1.. Plant Physiology, 2005, 138, 550-554.	2.3	82
50	Ectopic Overexpression of Asparagine Synthetase in Transgenic Tobacco. Plant Physiology, 1993, 103, 1285-1290.	2.3	81
51	Combinatorial interaction network of transcriptomic and phenotypic responses to nitrogen and hormones in the <i>Arabidopsis thaliana</i> root. Science Signaling, 2016, 9, rs13.	1.6	81
52	Glutamine Synthetase of Nicotiana plumbaginifolia. Plant Physiology, 1987, 84, 366-373.	2.3	79
53	Light- and Carbon-Signaling Pathways. Modeling Circuits of Interactions. Plant Physiology, 2003, 132, 440-452.	2.3	76
54	Plasticity Regulators Modulate Specific Root Traits in Discrete Nitrogen Environments. PLoS Genetics, 2013, 9, e1003760.	1.5	76

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55	Integrated RNA-seq and sRNA-seq analysis identifies novel nitrate-responsive genes in Arabidopsis thaliana roots. BMC Genomics, 2013, 14, 701.	1.2	76
56	Expressed sequence tag analysis in Cycas, the most primitive living seed plant. Genome Biology, 2003, 4, R78.	13.9	74
57	TARGET: A Transient Transformation System for Genome-Wide Transcription Factor Target Discovery. Molecular Plant, 2013, 6, 978-980.	3.9	73
58	Arabidopsis Mutants Define an in Vivo Role for Isoenzymes of Aspartate Aminotransferase in Plant Nitrogen Assimilation. Genetics, 1998, 149, 491-499.	1.2	73
59	Developmentally Regulated Expression of the Gene Family for Cytosolic Glutamine Synthetase in Pisum sativum. Plant Physiology, 1989, 91, 702-708.	2.3	71
60	Genome-wide investigation of light and carbon signaling interactions in Arabidopsis. Genome Biology, 2004, 5, R10.	13.9	71
61	Insights into the genomic nitrate response using genetics and the Sungear Software System. Journal of Experimental Botany, 2007, 58, 2359-2367.	2.4	71
62	A promoter sequence involved in cell-specific expression of the pea glutamine synthetaseGS3Agene in organs of transgenic tobacco and alfalfa. Plant Journal, 1991, 1, 235-244.	2.8	69
63	Modeling the global effect of the basic-leucine zipper transcription factor 1 (bZIP1) on nitrogen and light regulation in Arabidopsis. BMC Systems Biology, 2010, 4, 111.	3.0	69
64	Molecular and Physiological Analysis of Arabidopsis Mutants Defective in Cytosolic or Chloroplastic Aspartate Aminotransferase. Plant Physiology, 2002, 129, 650-660.	2.3	65
65	A Systems Approach Uncovers Restrictions for Signal Interactions Regulating Genome-wide Responses to Nutritional Cues in Arabidopsis. PLoS Computational Biology, 2009, 5, e1000326.	1.5	64
66	cis Elements and trans-Acting Factors Affecting Regulation of a Nonphotosynthetic Light-Regulated Gene for Chloroplast Glutamine Synthetase. Plant Physiology, 1995, 108, 1109-1117.	2.3	60
67	RootScape: A Landmark-Based System for Rapid Screening of Root Architecture in Arabidopsis Â Â. Plant Physiology, 2013, 161, 1086-1096.	2.3	59
68	A matter of time â€" How transient transcription factor interactions create dynamic gene regulatory networks. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2017, 1860, 75-83.	0.9	58
69	Longâ€distance nitrate signaling displays cytokinin dependent and independent branches. Journal of Integrative Plant Biology, 2016, 58, 226-229.	4.1	57
70	An integrated genetic, genomic and systems approach defines gene networks regulated by the interaction of light and carbon signaling pathways in Arabidopsis. BMC Systems Biology, 2008, 2, 31.	3.0	55
71	The Impact of Outgroup Choice and Missing Data on Major Seed Plant Phylogenetics Using Genome-Wide EST Data. PLoS ONE, 2009, 4, e5764.	1.1	54
72	A balancing act: how plants integrate nitrogen and water signals. Journal of Experimental Botany, 2020, 71, 4442-4451.	2.4	53

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73	Using Combinatorial Design to Study Regulation by Multiple Input Signals. A Tool for Parsimony in the Post-Genomics Era. Plant Physiology, 2001, 127, 1590-1594.	2.3	52
74	Cross-Species Network Analysis Uncovers Conserved Nitrogen-Regulated Network Modules in Rice Â. Plant Physiology, 2015, 168, 1830-1843.	2.3	50
75	Changes in Gene Expression in Space and Time Orchestrate Environmentally Mediated Shaping of Root Architecture. Plant Cell, 2017, 29, 2393-2412.	3.1	49
76	A system biology approach highlights a hormonal enhancer effect on regulation of genes in a nitrate responsive "biomodule". BMC Systems Biology, 2009, 3, 59.	3.0	48
77	Evolutionarily informed machine learning enhances the power of predictive gene-to-phenotype relationships. Nature Communications, 2021, 12, 5627.	5.8	48
78	Transfer RNA genes in the cap-oxil region of yeast mitochondrial DNA. Nucleic Acids Research, 1980, 8, 5017-5030.	6.5	42
79	Nutrient dose-responsive transcriptome changes driven by Michaelisâ€"Menten kinetics underlie plant growth rates. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12531-12540.	3.3	38
80	Light-induced transcriptional repression of the pea AS1 gene: identification of cis-elements and transfactors. Plant Journal, 1997, 12, 1021-1034.	2.8	36
81	Finding a nitrogen niche: a systems integration of local and systemic nitrogen signalling in plants. Journal of Experimental Botany, 2014, 65, 5601-5610.	2.4	36
82	Arabidopsis SDG8 Potentiates the Sustainable Transcriptional Induction of the Pathogenesis-Related Genes PR1 and PR2 During Plant Defense Response. Frontiers in Plant Science, 2020, 11, 277.	1.7	36
83	Assembly of the Mitochondrial Membrane System: Mutations in the pho2 Locus of the Mitochondrial Genome of Saccharomyces cerevisiae. FEBS Journal, 1978, 92, 279-287.	0.2	35
84	Sungear: interactive visualization and functional analysis of genomic datasets. Bioinformatics, 2007, 23, 259-261.	1.8	35
85	Plant ecological genomics at the limits of life in the Atacama Desert. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	35
86	EST analysis in Ginkgo biloba: an assessment of conserved developmental regulators and gymnosperm specific genes. BMC Genomics, 2005, 6, 143.	1.2	34
87	A Systems View of Responses to Nutritional Cues in Arabidopsis: Toward a Paradigm Shift for Predictive Network Modeling. Plant Physiology, 2010, 152, 445-452.	2.3	34
88	ESTimating plant phylogeny: lessons from partitioning. BMC Evolutionary Biology, 2006, 6, 48.	3.2	31
89	Automated simultaneous analysis phylogenetics (ASAP): an enabling tool for phlyogenomics. BMC Bioinformatics, 2008, 9, 103.	1.2	30
90	SDG8-Mediated Histone Methylation and RNA Processing Function in the Response to Nitrate Signaling. Plant Physiology, 2020, 182, 215-227.	2.3	30

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91	Photorespiration and Light Act in Concert to Regulate the Expression of the Nuclear Gene for Chloroplast Glutamine Synthetase. Plant Cell, 1989, 1, 241.	3.1	29
92	Using Phylogenomic Patterns and Gene Ontology to Identify Proteins of Importance in Plant Evolution. Genome Biology and Evolution, 2010, 2, 225-239.	1.1	27
93	GARP transcription factors repress Arabidopsis nitrogen starvation response via ROS-dependent and -independent pathways. Journal of Experimental Botany, 2021, 72, 3881-3901.	2.4	27
94	ConnecTF: A platform to integrate transcription factorâ€"gene interactions and validate regulatory networks. Plant Physiology, 2021, 185, 49-66.	2.3	27
95	From milliseconds to lifetimes: tracking the dynamic behavior of transcription factors in gene networks. Trends in Genetics, 2015, 31, 509-515.	2.9	26
96	Arabidopsis gls Mutants and Distinct Fd-GOGAT Genes: Implications for Photorespiration and Primary Nitrogen Assimilation. Plant Cell, 1998, 10, 741.	3.1	24
97	[9] The isolation of mitochondrial and nuclear mutants of Saccharomyces cerevisiae with specific defects in mitochondrial functions. Methods in Enzymology, 1979, 56, 95-106.	0.4	23
98	Plant Systems Biology. Plant Physiology, 2003, 132, 403-403.	2.3	23
99	â€œHit-and-Runâ€•transcription: de novo transcription initiated by a transient bZIP1 â€œhitâ€•persists after the â€œrunâ€• BMC Genomics, 2016, 17, 92.	1.2	22
100	WRKY1 Mediates Transcriptional Regulation of Light and Nitrogen Signaling Pathways. Plant Physiology, 2019, 181, 1371-1388.	2.3	22
101	â€œHitâ€andâ€Runâ€•leaves its mark: Catalyst transcription factors and chromatin modification. BioEssays, 2015, 37, 851-856.	1.2	20
102	Water impacts nutrient dose responses genome-wide to affect crop production. Nature Communications, 2019, 10, 1374.	5.8	19
103	A mutation in the Proteosomal Regulatory Particle AAA-ATPase-3 in Arabidopsis impairs the light-specific hypocotyl elongation response elicited by a glutamate receptor agonist, BMAA. Plant Molecular Biology, 2009, 70, 523-533.	2.0	17
104	Spatiotemporal analysis identifies ABF2 and ABF3 as key hubs of endodermal response to nitrate. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
105	Time-Based Systems Biology Approaches to Capture and Model Dynamic Gene Regulatory Networks. Annual Review of Plant Biology, 2021, 72, 105-131.	8.6	16
106	Achieving the in silico plant. Systems biology and the future of plant biological research. Plant Physiology, 2003, 132, 404-9.	2.3	15
107	Molecular evolution of duplicate copies of genes encoding cytosolic glutamine synthetase in Pisum sativum. Plant Molecular Biology, 1995, 29, 1111-1125.	2.0	14
108	A Novel AT-Rich DNA Binding Protein That Combines an HMG I-Like DNA Binding Domain with a Putative Transcription Domain. Plant Cell, 1994, 6, 107.	3.1	13

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109	Current status of the multinational Arabidopsis community. Plant Direct, 2020, 4, e00248.	0.8	13
110	OutPredict: multiple datasets can improve prediction of expression and inference of causality. Scientific Reports, 2020, 10, 6804.	1.6	13
111	Î¼ChIP-Seq for Genome-Wide Mapping of In Vivo TF-DNA Interactions in Arabidopsis Root Protoplasts. Methods in Molecular Biology, 2018, 1761, 249-261.	0.4	11
112	2020 Vision for Biology: The Role of Plants in Addressing Grand Challenges in Biology. Molecular Plant, 2008, 1, 561-563.	3.9	8
113	Perspectives on Ecological and Evolutionary Systems Biology. , 0, , 331-349.		8
114	The biology of time: dynamic responses of cell types to developmental, circadian, and environmental cues. Plant Journal, 2021, , .	2.8	8
115	ASSEMBLY OF THE MITOCHONDRIAL MEMBRANE SYSTEM: NUCLEAR SUPPRESSION OF A CYTOCHROME b MUTATION IN YEAST MITOCHONDRIAL DNA. Genetics, 1980, 95, 891-903.	1.2	7
116	Systems Biology: Principles and Applications in Plant Research. , 0, , 1-40.		6
117	iPlant Systems Biology (iPSB): An International Network Hub in the Plant Community. Molecular Plant, 2019, 12, 727-730.	3.9	5
118	The Plant Genome: Decoding the Transcriptional Hardwiring. , 0, , 196-228.		4
119	In Silico Evaluation of Predicted Regulatory Interactions in Arabidopsis thaliana. BMC Bioinformatics, 2009, 10, 435.	1.2	3
120	Gene Orthology Assessment with OrthologID. Methods in Molecular Biology, 2009, 537, 23-38.	0.4	2
121	Dissecting Light Repression of the Asparagine Synthetase gene (AS1) in Arabidopsis. , 1998, , 147-157.		2
122	Use of Arabidopsis Mutants and Genes to Study Amide Amino Acid Biosynthesis. Plant Cell, 1995, 7, 887.	3.1	1
123	Metabolomics: Integrating the Metabolome and the Proteome for Systems Biology. , 0, , 258-289.		1
124	An Overview of Systems Biology. , 0, , 41-66.		1
125	Prokaryotic Systems Biology. , 0, , 67-136.		1
126	Appointments and awards. Plant Molecular Biology Reporter, 1992, 10, 4-4.	1.0	0

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127	A Crucial Role for the NSF Postdoctoral Fellowship Program in Plant Biology. Plant Cell, 1993, 5, 722.	3.1	0
128	Analysis of Glutamate Receptor Genes in Plants: Progress and Prospects. , 2005, , 245-255.		0
129	Animal Systems Biology: Towards a Systems View of Development inC. Elegans. , 0, , 137-165.		0
130	The 4th Dimension of Transcriptional Networks: TIME. FASEB Journal, 2019, 33, 343.1.	0.2	0
131	From the Ionome to the Genome: Identifying the Gene Networks that Control the Mineral Content of Plants. , 0, , 290-303.		0
132	Development and Systems Biology: Riding the Genomics Wave towards a Systems Understanding of Root Development. , 0, , 304-330.		0
133	Software Tools for Systems Biology: Visualizing the Outcomes of N Experiments on M Entities. , 0, , 167-195.		0
134	The RNA World: Identifying miRNA-Target RNA Pairs as Possible Missing Links in Multi-Network Models. , 0, , 229-242.		0
135	Proteomics: Setting the Stage for Systems Biology. , 0, , 243-257.		0