Jiayang Li

List of Publications by Citations

151 papers	15,891 citations	62 h-index	125 g-index
163 ext. papers	21,154 ext. citations	15.6 avg, IF	6.51 L-index

#	Paper	IF	Citations
151	A map of rice genome variation reveals the origin of cultivated rice. *Nature*, **2012**, 490, 497-501	50.4	994
150	Regulation of OsSPL14 by OsmiR156 defines ideal plant architecture in rice. *Nature Genetics*, **2010**, 42, 541-4	36.3	851
149	Control of tillering in rice. *Nature*, **2003**, 422, 618-21	50.4	756
148	Natural variation at the DEP1 locus enhances grain yield in rice. *Nature Genetics*, **2009**, 41, 494-7	36.3	645
147	Genomic variation in 3,010 diverse accessions of Asian cultivated rice. *Nature*, **2018**, 557, 43-49	50.4	582
146	DWARF 53 acts as a repressor of strigolactone signalling in rice. *Nature*, **2013**, 504, 401-5	50.4	475
145	DWARF27, an iron-containing protein required for the biosynthesis of strigolactones, regulates rice tiller bud outgrowth. *Plant Cell*, **2009**, 21, 1512-25	11.6	431
144	Genome-wide binding analysis of the transcription activator ideal plant architecture1 reveals a complex network regulating rice plant architecture. *Plant Cell*, **2013**, 25, 3743-59	11.6	417
143	Identification of trait-improving quantitative trait loci alleles from a wild rice relative, Oryza rufipogon. *Genetics*, **1998**, 150, 899-909	4	392
142	Allelic diversities in rice starch biosynthesis lead to a diverse array of rice eating and cooking qualities. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 21760-5	11.5	354
141	Molecular basis of plant architecture. *Annual Review of Plant Biology*, **2008**, 59, 253-79	30.7	339
140	Variation in NRT1.1B contributes to nitrate-use divergence between rice subspecies. *Nature Genetics*, **2015**, 47, 834-8	36.3	334
139	Copy number variation at the GL7 locus contributes to grain size diversity in rice. *Nature Genetics*, **2015**, 47, 944-8	36.3	317
138	A phenylalanine in DGAT is a key determinant of oil content and composition in maize. *Nature Genetics*, **2008**, 40, 367-72	36.3	317
137	Rare allele of OsPPKL1 associated with grain length causes extra-large grain and a significant yield increase in rice. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 21534-9	11.5	298
136	Genes from wild rice improve yield. *Nature*, **1996**, 384, 223-224	50.4	289
135	BRITTLE CULM1, which encodes a COBRA-like protein, affects the mechanical properties of rice plants. *Plant Cell*, **2003**, 15, 2020-31	11.6	273

134	DWARF14 is a non-canonical hormone receptor for strigolactone. *Nature*, **2016**, 536, 469-73	50.4	266
133	Molecular genetic dissection of quantitative trait loci regulating rice grain size. *Annual Review of Genetics*, **2014**, 48, 99-118	14.5	239
132	Gene replacements and insertions in rice by intron targeting using CRISPR-Cas9. *Nature Plants*, **2016**, 2, 16139	11.5	221
131	Strigolactone Signaling in Arabidopsis Regulates Shoot Development by Targeting D53-Like SMXL Repressor Proteins for Ubiquitination and Degradation. *Plant Cell*, **2015**, 27, 3128-42	11.6	216
130	TAC1, a major quantitative trait locus controlling tiller angle in rice. *Plant Journal*, **2007**, 52, 891-8	6.9	208
129	Genetic Regulation of Shoot Architecture. *Annual Review of Plant Biology*, **2018**, 69, 437-468	30.7	205
128	LAZY1 controls rice shoot gravitropism through regulating polar auxin transport. *Cell Research*, **2007**, 17, 402-10	24.7	202
127	Genome-wide association studies dissect the genetic networks underlying agronomical traits in soybean. *Genome Biology*, **2017**, 18, 161	18.3	190
126	Deficiency in fatty acid synthase leads to premature cell death and dramatic alterations in plant morphology. *Plant Cell*, **2000**, 12, 405-18	11.6	186
125	Crystal structures of two phytohormone signal-transducing α/β hydrolases: karrikin-signaling KAI2 and strigolactone-signaling DWARF14. *Cell Research*, **2013**, 23, 436-9	24.7	185
124	QTL detection for rice grain quality traits using an interspecific backcross population derived from cultivated Asian (O. sativa L.) and African (O. glaberrima S.) rice. *Genome*, **2004**, 47, 697-704	2.4	179
123	Genomic analysis of hybrid rice varieties reveals numerous superior alleles that contribute to heterosis. *Nature Communications*, **2015**, 6, 6258	17.4	178
122	Rational design of high-yield and superior-quality rice. *Nature Plants*, **2017**, 3, 17031	11.5	155
121	Fine mapping of a grain-weight quantitative trait locus in the pericentromeric region of rice chromosome 3. *Genetics*, **2004**, 168, 2187-95	4	152
120	A proposed regulatory framework for genome-edited crops. *Nature Genetics*, **2016**, 48, 109-11	36.3	148
119	Branching in rice. *Current Opinion in Plant Biology*, **2011**, 14, 94-9	9.9	147
118	Expression of the Nitrate Transporter Gene Confers High Yield and Early Maturation in Rice. *Plant Cell*, **2018**, 30, 638-651	11.6	145
117	Activation of Big Grain1 significantly improves grain size by regulating auxin transport in rice. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 11102-7	11.5	140

116	A single transcription factor promotes both yield and immunity in rice. *Science*, **2018**, 361, 1026-1028	33.3	138
115	Through the genetic bottleneck: O. rufipogon as a source of trait-enhancing alleles for O. sativa. *Euphytica*, **2007**, 154, 317-339	2.1	135
114	Targeted, random mutagenesis of plant genes with dual cytosine and adenine base editors. *Nature Biotechnology*, **2020**, 38, 875-882	44.5	133
113	Construction of a Genome-Wide Mutant Library in Rice Using CRISPR/Cas9. *Molecular Plant*, **2017**, 10, 1238-1241	14.4	127
112	Increased expression of MAP KINASE KINASE7 causes deficiency in polar auxin transport and leads to plant architectural abnormality in Arabidopsis. *Plant Cell*, **2006**, 18, 308-20	11.6	122
111	Tryptophan-independent auxin biosynthesis contributes to early embryogenesis in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 4821-6	11.5	120
110	Generation of herbicide tolerance traits and a new selectable marker in wheat using base editing. *Nature Plants*, **2019**, 5, 480-485	11.5	116
109	IPA1 functions as a downstream transcription factor repressed by D53 in strigolactone signaling in rice. *Cell Research*, **2017**, 27, 1128-1141	24.7	115
108	The plant architecture of rice (Oryza sativa). *Plant Molecular Biology*, **2005**, 59, 75-84	4.6	114
107	Destabilization of strigolactone receptor DWARF14 by binding of ligand and E3-ligase signaling effector DWARF3. *Cell Research*, **2015**, 25, 1219-36	24.7	110
106	Degradation of MONOCULM 1 by APC/C(TAD1) regulates rice tillering. *Nature Communications*, **2012**, 3, 750	17.4	110
105	Breeding high-yield superior quality hybrid super rice by rational design. *National Science Review*, **2016**, 3, 283-294	10.8	108
104	Silencing of phosphoethanolamine N-methyltransferase results in temperature-sensitive male sterility and salt hypersensitivity in Arabidopsis. *Plant Cell*, **2002**, 14, 2031-43	11.6	101
103	Critical roles of soluble starch synthase SSIIIa and granule-bound starch synthase Waxy in synthesizing resistant starch in rice. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 12844-12849	11.5	100
102	Natural variation of rice strigolactone biosynthesis is associated with the deletion of two MAX1 orthologs. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 2379-84	11.5	96
101	Towards molecular breeding and improvement of rice in China. *Trends in Plant Science*, **2005**, 10, 610-4	13.1	90
100	Strigolactones regulate rice tiller angle by attenuating shoot gravitropism through inhibiting auxin biosynthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 11199-204	11.5	88
99	Structural basis for recognition of diverse transcriptional repressors by the TOPLESS family of corepressors. *Science Advances*, **2015**, 1, e1500107	14.3	86

98	A natural tandem array alleviates epigenetic repression of IPA1 and leads to superior yielding rice. *Nature Communications*, **2017**, 8, 14789	17.4	85
97	Signalling and responses to strigolactones and karrikins. *Current Opinion in Plant Biology*, **2014**, 21, 23-29	9.9	85
96	A route to de novo domestication of wild allotetraploid rice. *Cell*, **2021**, 184, 1156-1170.e14	56.2	81
95	MONOCULM 3, an ortholog of WUSCHEL in rice, is required for tiller bud formation. *Journal of Genetics and Genomics*, **2015**, 42, 71-8	4	73
94	Malate transported from chloroplast to mitochondrion triggers production of ROS and PCD in Arabidopsis thaliana. *Cell Research*, **2018**, 28, 448-461	24.7	71
93	Transcriptional regulation of strigolactone signalling in Arabidopsis. *Nature*, **2020**, 583, 277-281	50.4	68
92	Peptidyl-prolyl isomerization targets rice Aux/IAAs for proteasomal degradation during auxin signalling. *Nature Communications*, **2015**, 6, 7395	17.4	65
91	Mitogen-Activated Protein Kinase Cascade MKK7-MPK6 Plays Important Roles in Plant Development and Regulates Shoot Branching by Phosphorylating PIN1 in Arabidopsis. *PLoS Biology*, **2016**, 14, e1002550	9.7	65
90	xCas9 expands the scope of genome editing with reduced efficiency in rice. *Plant Biotechnology Journal*, **2019**, 17, 709-711	11.6	65
89	High-efficiency prime editing with optimized, paired pegRNAs in plants. *Nature Biotechnology*, **2021**, 39, 923-927	44.5	61
88	Genomic basis of geographical adaptation to soil nitrogen in rice. *Nature*, **2021**, 590, 600-605	50.4	59
87	Tissue-Specific Ubiquitination by IPA1 INTERACTING PROTEIN1 Modulates IPA1 Protein Levels to Regulate Plant Architecture in Rice. *Plant Cell*, **2017**, 29, 697-707	11.6	58
86	Deficient plastidic fatty acid synthesis triggers cell death by modulating mitochondrial reactive oxygen species. *Cell Research*, **2015**, 25, 621-33	24.7	57
85	Increasing the efficiency of CRISPR-Cas9-VQR precise genome editing in rice. *Plant Biotechnology Journal*, **2018**, 16, 292-297	11.6	56
84	A Core Regulatory Pathway Controlling Rice Tiller Angle Mediated by the -Dependent Asymmetric Distribution of Auxin. *Plant Cell*, **2018**, 30, 1461-1475	11.6	55
83	Molecular dissection of complex agronomic traits of rice: a team effort by Chinese scientists in recent years. *National Science Review*, **2014**, 1, 253-276	10.8	49
82	Rice Ferredoxin-Dependent Glutamate Synthase Regulates Nitrogen-Carbon Metabolomes and Is Genetically Differentiated between japonica and indica Subspecies. *Molecular Plant*, **2016**, 9, 1520-1534	14.4	48
81	Genome analysis of Taraxacum kok-saghyz Rodin provides new insights into rubber biosynthesis. *National Science Review*, **2018**, 5, 78-87	10.8	47

80	Strigolactone promotes cytokinin degradation through transcriptional activation of in rice. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 14319-14324	11.5	46
79	Genetic variations in ARE1 mediate grain yield by modulating nitrogen utilization in rice. *Nature Communications*, **2018**, 9, 735	17.4	45
78	SLR1 inhibits MOC1 degradation to coordinate tiller number and plant height in rice. *Nature Communications*, **2019**, 10, 2738	17.4	44
77	A D53 repression motif induces oligomerization of TOPLESS corepressors and promotes assembly of a corepressor-nucleosome complex. *Science Advances*, **2017**, 3, e1601217	14.3	40
76	Strigolactone and Karrikin Signaling Pathways Elicit Ubiquitination and Proteolysis of SMXL2 to Regulate Hypocotyl Elongation in Arabidopsis. *Plant Cell*, **2020**, 32, 2251-2270	11.6	38
75	Malate Circulation: Linking Chloroplast Metabolism to Mitochondrial ROS. *Trends in Plant Science*, **2020**, 25, 446-454	13.1	38
74	Tiller Bud Formation Regulators MOC1 and MOC3 Cooperatively Promote Tiller Bud Outgrowth by Activating FON1 Expression in Rice. *Molecular Plant*, **2019**, 12, 1090-1102	14.4	36
73	Robust genome editing of CRISPR-Cas9 at NAG PAMs in rice. *Science China Life Sciences*, **2018**, 61, 122-125	5	36
72	A Strigolactone Biosynthesis Gene Contributed to the Green Revolution in Rice. *Molecular Plant*, **2020**, 13, 923-932	14.4	35
71	Molecular marker-assisted selection for yield-enhancing genes in the progeny of 93110. rufipogon using SSR. *Euphytica*, **2004**, 139, 159-165	2.1	33
70	Designing future crops: challenges and strategies for sustainable agriculture. *Plant Journal*, **2021**, 105, 1165-1178	6.9	31
69	An Arabidopsis Secondary Metabolite Directly Targets Expression of the Bacterial Type III Secretion System to Inhibit Bacterial Virulence. *Cell Host and Microbe*, **2020**, 27, 601-613.e7	23.4	29
68	OsBRXL4 Regulates Shoot Gravitropism and Rice Tiller Angle through Affecting LAZY1 Nuclear Localization. *Molecular Plant*, **2019**, 12, 1143-1156	14.4	29
67	Towards a deeper haplotype mining of complex traits in rice with RFGB v2.0. *Plant Biotechnology Journal*, **2020**, 18, 14-16	11.6	29
66	The Rice Circadian Clock Regulates Tiller Growth and Panicle Development Through Strigolactone Signaling and Sugar Sensing. *Plant Cell*, **2020**, 32, 3124-3138	11.6	28
65	Rice functional genomics and breeding database (RFGB)-3K-rice SNP and InDel sub-database. *Chinese Science Bulletin*, **2015**, 60, 367-371	2.9	27
64	Glabrous Rice 1, encoding a homeodomain protein, regulates trichome development in rice. *Rice*, **2012**, 5, 32	5.8	27
63	Rice DWARF14 acts as an unconventional hormone receptor for strigolactone. *Journal of Experimental Botany*, **2018**, 69, 2355-2365	7	26

62	Identification of chromosome regions conferring dry matter accumulation and photosynthesis in wheat (Triticum aestivum L.). *Euphytica*, **2010**, 171, 145-156	2.1	26
61	Growing Slowly 1 locus encodes a PLS-type PPR protein required for RNA editing and plant development in Arabidopsis. *Journal of Experimental Botany*, **2016**, 67, 5687-5698	7	26
60	The Arabidopsis CROWDED NUCLEI genes regulate seed germination by modulating degradation of ABI5 protein. *Journal of Integrative Plant Biology*, **2016**, 58, 669-78	8.3	25
59	Retrospective and perspective of rice breeding in China. *Journal of Genetics and Genomics*, **2018**, 45, 603-612	4	25
58	DWARF14, A Receptor Covalently Linked with the Active Form of Strigolactones, Undergoes Strigolactone-Dependent Degradation in Rice. *Frontiers in Plant Science*, **2017**, 8, 1935	6.2	24
57	Validation of DGAT1-2 polymorphisms associated with oil content and development of functional markers for molecular breeding of high-oil maize. *Molecular Breeding*, **2012**, 29, 939-949	3.4	24
56	Dynamic expression reveals a two-step patterning of WUS and CLV3 during axillary shoot meristem formation in Arabidopsis. *Journal of Plant Physiology*, **2017**, 214, 1-6	3.6	23
55	Identification of microRNAs in rice root in response to nitrate and ammonium. *Journal of Genetics and Genomics*, **2016**, 43, 651-661	4	23
54	Transnitrosylation Mediated by the Non-canonical Catalase ROG1 Regulates Nitric Oxide Signaling in Plants. *Developmental Cell*, **2020**, 53, 444-457.e5	10.2	22
53	Karrikin Signaling Acts Parallel to and Additively with Strigolactone Signaling to Regulate Rice Mesocotyl Elongation in Darkness. *Plant Cell*, **2020**, 32, 2780-2805	11.6	22
52	β-Carotene Isomerase Suppresses Tillering in Rice through the Coordinated Biosynthesis of Strigolactone and Abscisic Acid. *Molecular Plant*, **2020**, 13, 1784-1801	14.4	21
51	Recent advances in molecular basis for strigolactone action. *Science China Life Sciences*, **2018**, 61, 277-284	8.5	21
50	Regulation of Rice Tillering by RNA-Directed DNA Methylation at Miniature Inverted-Repeat Transposable Elements. *Molecular Plant*, **2020**, 13, 851-863	14.4	19
49	A transgenic wheat with a stilbene synthase gene resistant to powdery mildew obtained by biolistic method. *Science Bulletin*, **2000**, 45, 634-638		19
48	Generating broad-spectrum tolerance to ALS-inhibiting herbicides in rice by base editing. *Science China Life Sciences*, **2021**, 64, 1624-1633	8.5	18
47	Regulation of mitochondrial NAD pool via NAD transporter 2 is essential for matrix NADH homeostasis and ROS production in Arabidopsis. *Science China Life Sciences*, **2019**, 62, 991-1002	8.5	17
46	Development of gene-tagged molecular markers for starch synthesis-related genes in rice. *Science Bulletin*, **2010**, 55, 3768-3777		17
45	Detection of major loci associated with the variation of 18 important agronomic traits between Solanum pimpinellifolium and cultivated tomatoes. *Plant Journal*, **2018**, 95, 312-323	6.9	16

44	Deletion of the initial 45 residues of ARR18 induces cytokinin response in Arabidopsis. *Journal of Genetics and Genomics*, **2012**, 39, 37-46	4	16
43	FIS1 encodes a GA2-oxidase that regulates fruit firmness in tomato. *Nature Communications*, **2020**, 11, 5844	17.4	16
42	DROOPY LEAF1 controls leaf architecture by orchestrating early brassinosteroid signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 21766-21774	11.5	16
41	Identification of Regulatory DNA Elements Using Genome-wide Mapping of DNase I Hypersensitive Sites during Tomato Fruit Development. *Molecular Plant*, **2016**, 9, 1168-1182	14.4	16
40	Hybrid Rice: Genetics, Breeding, and Seed Production **2010**, 15-158		13
39	The dual effects of ethylene on the negative gravicurvature of arabidopsis inflorescence, an intriguing action model for the plant hormone ethylene. *Science Bulletin*, **2001**, 46, 279-283		13
38	Differential expression of triplicate phosphoribosylanthranilate isomerase isogenes in the tryptophan biosynthetic pathway of Arabidopsis thaliana (L.) Heynh. *Planta*, **2001**, 212, 641-7	4.7	13
37	Microsatellite markers in rice: abundance, diversity, and applications **2008**, 117-135		12
36	Identification of brassinosteroid responsive genes in Arabidopsis by cDNA array. *Science in China Series C: Life Sciences*, **2001**, 44, 637-43		12
35	Involvement of a Putative Bipartite Transit Peptide in Targeting Rice Pheophorbide a Oxygenase into Chloroplasts for Chlorophyll Degradation during Leaf Senescence. *Journal of Genetics and Genomics*, **2016**, 43, 145-54	4	10
34	Rice functional genomics: decades' efforts and roads ahead. *Science China Life Sciences*, **2021**, 65, 33	8.5	10
33	Action of strigolactones in plants. *The Enzymes*, **2014**, 35, 57-84	2.3	9
32	Combination of Eight Alleles at Four Quantitative Trait Loci Determines Grain Length in Rice. *PLoS ONE*, **2016**, 11, e0150832	3.7	9
31	ScCas9 recognizes NNG protospacer adjacent motif in genome editing of rice. *Science China Life Sciences*, **2020**, 63, 450-452	8.5	7
30	Grain Quality **2013**, 237-254		7
29	Advances in the regulation and crosstalks of phytohormones. *Science Bulletin*, **2009**, 54, 4069-4082		6
28	Synergistic interplay of ABA and BR signal in regulating plant growth and adaptation. *Nature Plants*, **2021**, 7, 1108-1118	11.5	6
27	Rapid and specific isolation of intact mitochondria from Arabidopsis leaves. *Journal of Genetics and Genomics*, **2020**, 47, 65-68	4	5

26	Enhancing rice grain production by manipulating the naturally evolved cis-regulatory element-containing inverted repeat sequence of OsREM20. *Molecular Plant*, **2021**, 14, 997-1011	14.4	5
25	Molecular mechanisms underlying plant architecture and its environmental plasticity in rice. *Molecular Breeding*, **2019**, 39, 1	3.4	5
24	Expanding the scope of genome editing with SpG and SpRY variants in rice. *Science China Life Sciences*, **2021**, 64, 1784-1787	8.5	5
23	Strigolactones **2017**, 327-359		4
22	Monitoring gene expression by cDNA array. *Science Bulletin*, **1999**, 44, 441-444		4
21	Molecular basis underlying rice tiller angle: Current progress and future perspectives.. *Molecular Plant*, **2021**,	14.4	4
20	Rice Protein Tagging Project: A Call for International Collaborations on Genome-wide In-Locus Tagging of Rice Proteins. *Molecular Plant*, **2020**, 13, 1663-1665	14.4	4
19	Profiling of RNA ribose methylation in Arabidopsis thaliana. *Nucleic Acids Research*, **2021**, 49, 4104-4119	20.1	4
18	Short- and long-term challenges in crop breeding. *National Science Review*, **2021**, 8, nwab002	10.8	4
17	Rice Plant Architecture: Molecular Basis and Application in Breeding **2018**, 129-154		3
16	Fine-mapping of an Arabidopsis cell death mutation locus. *Science in China Series C: Life Sciences*, **2000**, 43, 138-45		3
15	Extensive sequence divergence between the reference genomes of Taraxacum kok-saghyz and Taraxacum mongolicum.. *Science China Life Sciences*, **2021**, 65, 515	8.5	3
14	LAZY2 controls rice tiller angle through regulating starch biosynthesis in gravity-sensing cells. *New Phytologist*, **2021**, 231, 1073-1087	9.8	3
13	FED: a web tool for foreign element detection of genome-edited organism. *Science China Life Sciences*, **2021**, 64, 167-170	8.5	3
12	Nitric oxide negatively regulates gibberellin signaling to coordinate growth and salt tolerance in Arabidopsis.. *Journal of Genetics and Genomics*, **2022**,	4	3
11	Combination of twelve alleles at six quantitative trait loci determines grain weight in rice. *PLoS ONE*, **2017**, 12, e0181588	3.7	2
10	Targeting a gene regulatory element enhances rice grain yield by decoupling panicle number and size.. *Nature Biotechnology*, **2022**,	44.5	2
9	Evolution of Strigolactone Perception by Seeds of Parasitic Plants: Reinventing the Wheel. *Molecular Plant*, **2016**, 9, 493-5	14.4	1

8	Mapping and characterization of a tiller-spreading mutantlazy-2 in rice. *Science Bulletin*, **2003**, 48, 2715-2717		1
7	Breeding future crops to feed the world through de novo domestication.. *Nature Communications*, **2022**, 13, 1171	17.4	0
6	Resistant starch formation in rice: Genetic regulation and beyond.. *Plant Communications*, **2022**, 3, 100329	7	0
5	Dedication: Longping Yuan: Rice Breeder and World Hunger Fighter **2010**, 1-13		
4	Advances in Arabidopsis research in China from 2006 to 2007. *Science Bulletin*, **2007**, 52, 1729-1733		
3	Expression ofArabidopsis tryptophan biosynthetic pathway genes: effect of the 5' coding region of phosphoribosylanthranilate isomerase gene. *Science in China Series C: Life Sciences*, **1999**, 42, 274-80		
2	Rice geographic adaption to poor soil: novel insights for sustainable agriculture. *Molecular Plant*, **2021**, 14, 369-371	14.4	
1	Immunopurification of Mitochondria from Arabidopsis. *Current Protocols*, **2021**, 1, e34		