Shawn M Kaeppler

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5250305/publications.pdf Version: 2024-02-01

		30070	30087
138	12,169	54	103
papers	citations	h-index	g-index
153	153	153	14223
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Comparative population genomics of maize domestication and improvement. Nature Genetics, 2012, 44, 808-811.	21.4	816
2	Epigenetic aspects of somaclonal variation in plants. Plant Molecular Biology, 2000, 43, 179-188.	3.9	593
3	Maize HapMap2 identifies extant variation from a genome in flux. Nature Genetics, 2012, 44, 803-807.	21.4	577
4	Shovelomics: high throughput phenotyping of maize (Zea mays L.) root architecture in the field. Plant and Soil, 2011, 341, 75-87.	3.7	545
5	Genomeâ€wide atlas of transcription during maize development. Plant Journal, 2011, 66, 553-563.	5.7	515
6	Genetic instability of plant tissue cultures: breakdown of normal controls Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 5222-5226.	7.1	509
7	Insights into the Maize Pan-Genome and Pan-Transcriptome Â. Plant Cell, 2014, 26, 121-135.	6.6	498
8	An Expanded Maize Gene Expression Atlas based on RNA Sequencing and its Use to Explore Root Development. Plant Genome, 2016, 9, plantgenome2015.04.0025.	2.8	289
9	Variation among Maize Inbred Lines and Detection of Quantitative Trait Loci for Growth at Low Phosphorus and Responsiveness to Arbuscular Mycorrhizal Fungi. Crop Science, 2000, 40, 358-364.	1.8	231
10	Mapping of QTLs for lateral root branching and length in maize (Zea mays L.) under differential phosphorus supply. Theoretical and Applied Genetics, 2005, 111, 688-695.	3.6	224
11	Maize root growth angles become steeper under low N conditions. Field Crops Research, 2013, 140, 18-31.	5.1	223
12	Conserved plant genes with similarity to mammalian de novo DNA methyltransferases. Proceedings of the United States of America, 2000, 97, 4979-4984.	7.1	222
13	Mapping of QTL controlling root hair length in maize (Zea mays L.) under phosphorus deficiency. Plant and Soil, 2005, 270, 299-310.	3.7	218
14	Autophagic Recycling Plays a Central Role in Maize Nitrogen Remobilization. Plant Cell, 2015, 27, 1389-1408.	6.6	211
15	Marker Density and Read Depth for Genotyping Populations Using Genotyping-by-Sequencing. Genetics, 2013, 193, 1073-1081.	2.9	206
16	Tissue culture-induced DNA methylation variation in maize Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 8773-8776.	7.1	197
17	Topsoil foraging and phosphorus acquisition efficiency in maize (Zea mays). Functional Plant Biology, 2005, 32, 749.	2.1	191
18	Draft Assembly of Elite Inbred Line PH207 Provides Insights into Genomic and Transcriptome Diversity in Maize. Plant Cell, 2016, 28, 2700-2714.	6.6	183

#	Article	IF	CITATIONS
19	Comparative Analysis of SET Domain Proteins in Maize and Arabidopsis Reveals Multiple Duplications Preceding the Divergence of Monocots and Dicots. Plant Physiology, 2003, 132, 907-925.	4.8	176
20	Genetic Perturbation of the Maize Methylome. Plant Cell, 2014, 26, 4602-4616.	6.6	158
21	Detection of quantitative trait loci for seminal root traits in maize (Zea mays L.) seedlings grown under differential phosphorus levels. Theoretical and Applied Genetics, 2006, 113, 1-10.	3.6	157
22	Maize (Zea mays L.) Genome Diversity as Revealed by RNA-Sequencing. PLoS ONE, 2012, 7, e33071.	2.5	153
23	Maize Gene Atlas Developed by RNA Sequencing and Comparative Evaluation of Transcriptomes Based on RNA Sequencing and Microarrays. PLoS ONE, 2013, 8, e61005.	2.5	152
24	Genome-wide association analysis reveals new targets for carotenoid biofortification in maize. Theoretical and Applied Genetics, 2015, 128, 851-864.	3.6	146
25	Utility of RNA Sequencing for Analysis of Maize Reproductive Transcriptomes. Plant Genome, 2011, 4, 191-203.	2.8	131
26	The Genetic Architecture of Maize Stalk Strength. PLoS ONE, 2013, 8, e67066.	2.5	129
27	Maize Chromomethylase <i>Zea methyltransferase2</i> Is Required for CpNpG Methylation. Plant Cell, 2001, 13, 1919-1928.	6.6	120
28	The effect of artificial selection on phenotypic plasticity in maize. Nature Communications, 2017, 8, 1348.	12.8	105
29	Genomic imprinting, methylation and molecular evolution of maize Enhancer of zeste (Mez) homologs. Plant Journal, 2007, 49, 325-337.	5.7	97
30	Whole Transcriptome Profiling of Maize during Early Somatic Embryogenesis Reveals Altered Expression of Stress Factors and Embryogenesis-Related Genes. PLoS ONE, 2014, 9, e111407.	2.5	96
31	Formation of Heterotic Groups and Understanding Genetic Effects in a Provitamin A Biofortified Maize Breeding Program. Crop Science, 2014, 54, 14-24.	1.8	92
32	Introduction to a Special Issue on Genotype by Environment Interaction. Crop Science, 2016, 56, 2081-2089.	1.8	92
33	The Switchgrass Genome: Tools and Strategies. Plant Genome, 2011, 4, 273-282.	2.8	91
34	Transcriptional and Metabolic Analysis of Senescence Induced by Preventing Pollination in Maize. Plant Physiology, 2012, 159, 1730-1744.	4.8	90
35	QTL mapping and phenotypic variation for root architectural traits in maize (Zea mays L.). Theoretical and Applied Genetics, 2014, 127, 2293-2311.	3.6	90
36	Induction of maize acid phosphatase activities under phosphorus starvation. Plant and Soil, 2001, 237, 109-115.	3.7	87

#	Article	IF	CITATIONS
37	Molecular Markers Associated with Plant Architecture and Resistance to Common Blight, Web Blight, and Rust in Common Beans. Journal of the American Society for Horticultural Science, 1996, 121, 794-803.	1.0	87
38	A robust, highâ€ŧhroughput method for computing maize ear, cob, and kernel attributes automatically from images. Plant Journal, 2017, 89, 169-178.	5.7	86
39	Maize Chromomethylase Zea methyltransferase2 Is Required for CpNpG Methylation. Plant Cell, 2001, 13, 1919-1928.	6.6	86
40	Post-glacial evolution of Panicum virgatum: centers of diversity and gene pools revealed by SSR markers and cpDNA sequences. Genetica, 2011, 139, 933-948.	1.1	85
41	Genetic Diversity of a Maize Association Population with Restricted Phenology. Crop Science, 2011, 51, 704-715.	1.8	81
42	Enhanced maize productivity by inoculation with diazotrophic bacteria. Functional Plant Biology, 2001, 28, 829.	2.1	80
43	Hierarchical classification of switchgrass genotypes using SSR and chloroplast sequences: ecotypes, ploidies, gene pools, and cultivars. Theoretical and Applied Genetics, 2011, 122, 805-817.	3.6	80
44	Sequence Relationships, Conserved Domains, and Expression Patterns for Maize Homologs of the Polycomb Group GenesE(z), esc, andE(Pc). Plant Physiology, 2002, 128, 1332-1345.	4.8	79
45	Transgene-Induced RNA Interference as a Tool for Plant Functional Genomics. Methods in Enzymology, 2005, 392, 1-24.	1.0	78
46	Genome-wide association analysis of stalk biomass and anatomical traits in maize. BMC Plant Biology, 2019, 19, 45.	3.6	77
47	B73-Mo17 Near-Isogenic Lines Demonstrate Dispersed Structural Variation in Maize Â. Plant Physiology, 2011, 156, 1679-1690.	4.8	76
48	Natural Hybrids and Gene Flow between Upland and Lowland Switchgrass. Crop Science, 2011, 51, 2626-2641.	1.8	76
49	Consistent and Heritable Alterations of DNA Methylation Are Induced by Tissue Culture in Maize. Genetics, 2014, 198, 209-218.	2.9	76
50	Heterosis: Many Genes, Many Mechanisms—End the Search for an Undiscovered Unifying Theory. ISRN Botany, 2012, 2012, 1-12.	0.8	73
51	Defining window-boundaries for genomic analyses using smoothing spline techniques. Genetics Selection Evolution, 2015, 47, 30.	3.0	72
52	A Genome-Wide Scan for Evidence of Selection in a Maize Population Under Long-Term Artificial Selection for Ear Number. Genetics, 2014, 196, 829-840.	2.9	63
53	Integrated Genome-Scale Analysis Identifies Novel Genes and Networks Underlying Senescence in Maize. Plant Cell, 2019, 31, 1968-1989.	6.6	63
54	Evolutionary Divergence of Monocot and Dicot Methyl-CpG-Binding Domain Proteins. Plant Physiology, 2005, 138, 92-104.	4.8	62

#	Article	IF	CITATIONS
55	TIPS: a system for automated image-based phenotyping of maize tassels. Plant Methods, 2017, 13, 21.	4.3	62
56	Heritable Epigenomic Changes to the Maize Methylome Resulting from Tissue Culture. Genetics, 2018, 209, 983-995.	2.9	57
57	Molecular-marker-based Genetic Analysis of Tepary Bean-derived Common Bacterial Blight Resistance in Different Developmental Stages of Common Bean. Journal of the American Society for Horticultural Science, 1997, 122, 329-337.	1.0	57
58	Genomeâ€wide associations with flowering time in switchgrass using exomeâ€capture sequencing data. New Phytologist, 2017, 213, 154-169.	7.3	56
59	Assessing the Efficiency of RNA Interference for Maize Functional Genomics. Plant Physiology, 2007, 143, 1441-1451.	4.8	55
60	Assessing the Viability of Recovery of Hydroxycinnamic Acids from Lignocellulosic Biorefinery Alkaline Pretreatment Waste Streams. ChemSusChem, 2020, 13, 2012-2024.	6.8	54
61	Variability of chromosomal DNA contents in maize (Zea mays L.) inbred and hybrid lines. Planta, 2002, 215, 666-671.	3.2	52
62	The importance of dominance and genotype-by-environment interactions on grain yield variation in a large-scale public cooperative maize experiment. G3: Genes, Genomes, Genetics, 2021, 11, .	1.8	52
63	Genotype-by-environment interactions affecting heterosis in maize. PLoS ONE, 2018, 13, e0191321.	2.5	51
64	Tissue Culture-Induced Novel Epialleles of a <i>Myb</i> Transcription Factor Encoded by <i>pericarp color1</i> in Maize. Genetics, 2010, 186, 843-855.	2.9	49
65	QTL mapping and phenotypic variation of root anatomical traits in maize (Zea mays L.). Theoretical and Applied Genetics, 2015, 128, 93-106.	3.6	49
66	Diversity and population structure of northern switchgrass as revealed through exome capture sequencing. Plant Journal, 2015, 84, 800-815.	5.7	47
67	Evidence for maternal control of seed size in maize from phenotypic and transcriptional analysis. Journal of Experimental Botany, 2016, 67, 1907-1917.	4.8	47
68	<scp>DNA</scp> methylation and gene expression regulation associated with vascularization in <i>Sorghum bicolor</i> . New Phytologist, 2017, 214, 1213-1229.	7.3	47
69	Root angle in maize influences nitrogen capture and is regulated by calcineurin Bâ€like protein <scp>(CBL)</scp> â€interacting serine/threonineâ€protein kinase 15 (<scp><i>ZmClPK15</i></scp>). Plant, Cell and Environment, 2022, 45, 837-853.	5.7	46
70	Selection Signatures Underlying Dramatic Male Inflorescence Transformation During Modern Hybrid Maize Breeding. Genetics, 2018, 210, 1125-1138.	2.9	45
71	Utility of Climatic Information via Combining Ability Models to Improve Genomic Prediction for Yield Within the Genomes to Fields Maize Project. Frontiers in Genetics, 2020, 11, 592769.	2.3	44
72	Quantitative trait locus mapping using sets of near-isogenic lines: relative power comparisons and technical considerations. Theoretical and Applied Genetics, 1997, 95, 384-392.	3.6	43

#	Article	IF	CITATIONS
73	Diversity and heterotic patterns in North American proprietary dent maize germplasm. Crop Science, 2020, 60, 100-114.	1.8	42
74	lmage analysis of anatomical traits in stalk transections of maize and other grasses. Plant Methods, 2015, 11, 26.	4.3	40
75	Nucleotide polymorphism and copy number variant detection using exome capture and nextâ€generation sequencing in the polyploid grass P anicum virgatum. Plant Journal, 2014, 79, 993-1008.	5.7	39
76	Genetic control of root anatomical plasticity in maize. Plant Genome, 2020, 13, e20003.	2.8	39
77	Insights into the Effects of Long-Term Artificial Selection on Seed Size in Maize. Genetics, 2014, 198, 409-421.	2.9	38
78	Maize genomes to fields (G2F): 2014–2017 field seasons: genotype, phenotype, climatic, soil, and inbred ear image datasets. BMC Research Notes, 2020, 13, 71.	1.4	38
79	Phenotypic and Transcriptional Analysis of Divergently Selected Maize Populations Reveals the Role of Developmental Timing in Seed Size Determination Â. Plant Physiology, 2014, 165, 658-669.	4.8	37
80	Shared Genomic Regions Between Derivatives of a Large Segregating Population of Maize Identified Using Bulked Segregant Analysis Sequencing and Traditional Linkage Analysis. G3: Genes, Genomes, Genetics, 2015, 5, 1593-1602.	1.8	37
81	Multiple Maize Reference Genomes Impact the Identification of Variants by Genomeâ€Wide Association Study in a Diverse Inbred Panel. Plant Genome, 2019, 12, 180069.	2.8	37
82	Genetic control of root architectural plasticity in maize. Journal of Experimental Botany, 2020, 71, 3185-3197.	4.8	37
83	Maize <i>sugary enhancer1</i> (<i>se1</i>) is a gene affecting endosperm starch metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20776-20785.	7.1	36
84	Quantitative Trait Locus Mapping for Flowering Time in a Lowland × Upland Switchgrass Pseudoâ€F 2 Population. Plant Genome, 2018, 11, 170093.	2.8	35
85	Extensive Genetic Diversity is Present within North American Switchgrass Germplasm. Plant Genome, 2018, 11, 170055.	2.8	35
86	Suppression of CINNAMOYL-CoA REDUCTASE increases the level of monolignol ferulates incorporated into maize lignins. Biotechnology for Biofuels, 2017, 10, 109.	6.2	32
87	Chromosome-level genome assembly of a regenerable maize inbred line A188. Genome Biology, 2021, 22, 175.	8.8	32
88	Natural Variation for Alleles Under Epigenetic Control by the Maize Chromomethylase <i>Zmet2</i> . Genetics, 2007, 177, 749-760.	2.9	31
89	Accuracy of Genomic Prediction in Switchgrass (Panicum virgatum L.) Improved by Accounting for Linkage Disequilibrium. G3: Genes, Genomes, Genetics, 2016, 6, 1049-1062.	1.8	31
90	Impacts of Agricultural Nitrogen on the Environment and Strategies to Reduce these Impacts. Procedia Environmental Sciences, 2015, 29, 303.	1.4	29

#	Article	IF	CITATIONS
91	Stover Composition in Maize and Sorghum Reveals Remarkable Genetic Variation and Plasticity for Carbohydrate Accumulation. Frontiers in Plant Science, 2016, 7, 822.	3.6	29
92	Cell-wall properties contributing to improved deconstruction by alkaline pre-treatment and enzymatic hydrolysis in diverse maize (Zea maysL.) lines. Journal of Experimental Botany, 2015, 66, 4305-4315.	4.8	28
93	Large effect QTL explain natural phenotypic variation for the developmental timing of vegetative phase change in maize (Zea mays L.). Theoretical and Applied Genetics, 2015, 128, 529-538.	3.6	28
94	A near complete snapshot of the Zea mays seedling transcriptome revealed from ultra-deep sequencing. Scientific Reports, 2015, 4, 4519.	3.3	28
95	Genetic Analysis of Cell Wall Traits Relevant to Cellulosic Ethanol Production in Maize (<i>Zea) Tj ETQq1 1 0.7843</i>	14 rgBT /(1.8	Oyerlock 10
96	Plant science decadal vision 2020–2030: Reimagining the potential of plants for a healthy and sustainable future. Plant Direct, 2020, 4, e00252.	1.9	26
97	Maize Genomes to Fields: 2014 and 2015 field season genotype, phenotype, environment, and inbred ear image datasets. BMC Research Notes, 2018, 11, 452.	1.4	25
98	Use of near-isogenic lines derived by backcrossing or selfing to map qualitative traits. Theoretical and Applied Genetics, 1993, 87, 233-237.	3.6	23
99	TCUP: A Novel hAT Transposon Active in Maize Tissue Culture. Frontiers in Plant Science, 2012, 3, 6.	3.6	22
100	Genomic Prediction for Winter Survival of Lowland Switchgrass in the Northern USA. G3: Genes, Genomes, Genetics, 2019, 9, 1921-1931.	1.8	22
101	The Scientific Grand Challenges of the 21st Century for the Crop Science Society of America. Crop Science, 2012, 52, 1003-1010.	1.8	21
102	Relative utility of agronomic, phenological, and morphological traits for assessing genotypeâ€øyâ€environment interaction in maize inbreds. Crop Science, 2020, 60, 62-81.	1.8	21
103	Genetic Analysis of <i>Sugarcane mosaic virus</i> Resistance in the Wisconsin Diversity Panel of Maize. Crop Science, 2018, 58, 1853-1865.	1.8	20
104	Predicting Zea mays Flowering Time, Yield, and Kernel Dimensions by Analyzing Aerial Images. Frontiers in Plant Science, 2019, 10, 1251.	3.6	20
105	Response to Selection and Genetic Drift in Three Populations Derived from the Golden Glow Maize Population. Crop Science, 2004, 44, 1527-1534.	1.8	19
106	Transcriptional Analysis of Flowering Time in Switchgrass. Bioenergy Research, 2017, 10, 700-713.	3.9	19
107	Quantitative Trait Loci for Freezing Tolerance in a Lowland x Upland Switchgrass Population. Frontiers in Plant Science, 2019, 10, 372.	3.6	19
108	Genetic Fineâ€Mapping of a Quantitative Trait Locus (QTL) Associated with Embryogenic Tissue Culture Response and Plant Regeneration Ability in Maize (<i>Zea mays</i> L.). Plant Genome, 2018, 11, 170111.	2.8	17

#	Article	IF	CITATIONS
109	Singleâ€parent expression drives dynamic gene expression complementation in maize hybrids. Plant Journal, 2021, 105, 93-107.	5.7	16
110	Heterosis: one boat at a time, or a rising tide?. New Phytologist, 2011, 189, 900-902.	7.3	15
111	Variation and Inheritance of Small RNAs in Maize Inbreds and F1 Hybrids. Plant Physiology, 2020, 182, 318-331.	4.8	14
112	Genomic variation within the maize stiffâ€stalk heterotic germplasm pool. Plant Genome, 2021, 14, e20114.	2.8	14
113	Estimation of Maize Yield and Flowering Time Using Multi-Temporal UAV-Based Hyperspectral Data. Remote Sensing, 2022, 14, 3052.	4.0	13
114	Power analysis for quantitative trait locus mapping in populations derived by multiple backcrosses. Theoretical and Applied Genetics, 1997, 95, 618-621.	3.6	12
115	Genetic Control of Prolificacy and Related Traits in the Golden Glow Maize Population: I. Phenotypic Evaluation. Crop Science, 2005, 45, 1361-1369.	1.8	10
116	Lax leaf maize: cell wall composition and nutritional value. Journal of the Science of Food and Agriculture, 2000, 80, 255-262.	3.5	9
117	A high-throughput core sampling device for the evaluation of maize stalk composition. Biotechnology for Biofuels, 2012, 5, 27.	6.2	9
118	Prediction of Cell Wall Properties and Response to Deconstruction Using Alkaline Pretreatment in Diverse Maize Genotypes Using Py-MBMS and NIR. Bioenergy Research, 2017, 10, 329-343.	3.9	8
119	Candidate Variants for Additive and Interactive Effects on Bioenergy Traits in Switchgrass (<i>Panicum virgatum</i> L.) Identified by Genomeâ€Wide Association Analyses. Plant Genome, 2018, 11, 180002.	2.8	8
120	Loss-of-function of DELLA protein SLN1 activates GA signaling in barley aleurone. Acta Physiologiae Plantarum, 2010, 32, 789-800.	2.1	7
121	Conserved Transcriptional Regulatory Programs Underlying Rice and Barley Germination. PLoS ONE, 2014, 9, e87261.	2.5	6
122	A machine vision platform for measuring imbibition of maize kernels: quantification of genetic effects and correlations with germination. Plant Methods, 2018, 14, 115.	4.3	6
123	Generation of Transcript Assemblies and Identification of Single Nucleotide Polymorphisms from Seven Lowland and Upland Cultivars of Switchgrass. Plant Genome, 2014, 7, plantgenome2013.12.0041.	2.8	6
124	Selection Signatures in Four Lignin Genes from Switchgrass Populations Divergently Selected for In Vitro Dry Matter Digestibility. PLoS ONE, 2016, 11, e0167005.	2.5	5
125	Genetic loci associated with winter survivorship in diverse lowland switchgrass populations. Plant Genome, 2021, 14, e20159.	2.8	5
126	Genetic mapping and prediction of flowering time and plant height in a maize Stiff Stalk MAGIC population. Genetics, 2022, 221, .	2.9	5

#	Article	IF	CITATIONS
127	Testcross vs. randomly paired singleâ€cross progeny tests for genomic prediction of new inbreds and hybrids derived from multiparent maize populations. Crop Science, 2021, 61, 3425-3435.	1.8	4
128	A novel high-throughput hyperspectral scanner and analytical methods for predicting maize kernel composition and physical traits. Food Chemistry, 2022, 391, 133264.	8.2	4
129	Generating novel plant genetic variation via genome editing to escape the breeding lottery. In Vitro Cellular and Developmental Biology - Plant, 2021, 57, 627.	2.1	3
130	Strong parallel evidence of selection during switchgrass sward establishment in hybrid and lowland ecotypes. , 2022, 1, 31-42.		3
131	IntegrateNet: A Deep Learning Network for Maize Stand Counting From UAV Imagery by Integrating Density and Local Count Maps. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	3
132	Registration of the NyH (Ny821×H99) Maize Recombinant Inbred Mapping Population. Journal of Plant Registrations, 2016, 10, 101-104.	0.5	2
133	Characterizing introgression-by-environment interactions using maize near isogenic lines. Theoretical and Applied Genetics, 2020, 133, 2761-2773.	3.6	2
134	Chapter 3 Epigenetics. Advances in Agronomy, 2008, 100, 59-80.	5.2	1
135	Registration of the OhW (Oh43×W64A) Maize Recombinant Inbred Mapping Population. Journal of Plant Registrations, 2016, 10, 97-100.	0.5	0
136	Assessing the Viability of Recovery of Hydroxycinnamic Acids from Lignocellulosic Biorefinery Alkaline Pretreatment Waste Streams. ChemSusChem, 2020, 13, 1922-1922.	6.8	0
137	Maize (Zea Mays L.) Genome Diversity as Revealed by RNA-Sequencing. , 2014, , 299-325.		0
138	Chromatin, DNA Methylation, RNAi and Epigenetic Regulation. , 2009, , 441-458.		0