Karine Chenu

List of Publications by Year
in descending order

66 papers	5,597 citations	136950 32 h-index	128289 60 g-index
71 all docs	71 docs citations	71 times ranked	5328 citing authors

#	Article	IF	Citations
1	APSIM â€“ Evolution towards a new generation of agricultural systems simulation. Environmental Modelling and Software, 2014, 62, 327-350.	4.5	1,173
2	PHENOPSIS, an automated platform for reproducible phenotyping of plant responses to soil water deficit in Arabidopsis thaliana permitted the identification of an accession with low sensitivity to soil water deficit. New Phytologist, 2006, 169, 623-635.	7.3	512
3	Environment characterization as an aid to wheat improvement: interpreting genotypeâ€“environment interactions by modelling water-deficit patterns in North-Eastern Australia. Journal of Experimental Botany, 2011, 62, 1743-1755.	4.8	256
4	Largeâ€scale characterization of drought pattern: a continentâ€wide modelling approach applied to the Australian wheatbelt â€“ spatial and temporal trends. New Phytologist, 2013, 198, 801-820.	7.3	244
5	Breeding for the future: what are the potential impacts of future frost and heat events on sowing and flowering time requirements for <scp>A</scp>ustralian bread wheat (<i><scp>T</scp>riticum) Tj ETQq1 1 0.784314 rgBT /Overlock	4.5	240
6	The shifting influence of drought and heat stress for crops in northeast Australia. Global Change Biology, 2015, 21, 4115-4127.	9.5	230
7	Simulating the Yield Impacts of Organ-Level Quantitative Trait Loci Associated With Drought Response in Maize: A â€œGene-to-Phenotypeâ€ Modeling Approach. Genetics, 2009, 183, 1507-1523.	2.9	210
8	Contribution of Crop Models to Adaptation in Wheat. Trends in Plant Science, 2017, 22, 472-490.	8.8	201
9	Stay-green traits to improve wheat adaptation in well-watered and water-limited environments. Journal of Experimental Botany, 2016, 67, 5159-5172.	4.8	170
10	High-throughput phenotyping of seminal root traits in wheat. Plant Methods, 2015, 11, 13.	4.3	150
11	Detection and use of QTL for complex traits in multiple environments. Current Opinion in Plant Biology, 2010, 13, 193-205.	7.1	146
12	Frost trends and their estimated impact on yield in the Australian wheatbelt. Journal of Experimental Botany, 2015, 66, 3611-3623.	4.8	131
13	Shortâ€term responses of leaf growth rate to water deficit scale up to wholeâ€plant and crop levels: an integrated modelling approach in maize. Plant, Cell and Environment, 2008, 31, 378-391.	5.7	122
14	VERNALIZATION1 Modulates Root System Architecture in Wheat and Barley. Molecular Plant, 2018, 11, 226-229.	8.3	118
15	A multisite managed environment facility for targeted trait and germplasm phenotyping. Functional Plant Biology, 2013, 40, 1.	2.1	109
16	Individual Leaf Development in Arabidopsis thaliana: a Stable Thermal-time-based Programme. Annals of Botany, 2002, 89, 595-604.	2.9	106
17	Phenotyping novel stay-green traits to capture genetic variation in senescence dynamics. Functional Plant Biology, 2014, 41, 1035.	2.1	89
18	Plot size matters: interference from intergenotypic competition in plant phenotyping studies. Functional Plant Biology, 2014, 41, 107.	2.1	86

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19	Assessment of the Potential Impacts of Wheat Plant Traits across Environments by Combining Crop Modeling and Global Sensitivity Analysis. PLoS ONE, 2016, 11, e0146385.	2.5	86
20	Integrating modelling and phenotyping approaches to identify and screen complex traits: transpiration efficiency in cereals. Journal of Experimental Botany, 2018, 69, 3181-3194.	4.8	76
21	Combining Crop Growth Modeling and Statistical Genetic Modeling to Evaluate Phenotyping Strategies. Frontiers in Plant Science, 2019, 10, 1491.	3.6	65
22	Day Length Affects the Dynamics of Leaf Expansion and Cellular Development in Arabidopsis thaliana Partially through Floral Transition Timing. Annals of Botany, 2007, 99, 703-711.	2.9	60
23	QTL for stay-green traits in wheat in well-watered and water-limited environments. Field Crops Research, 2018, 217, 32-44.	5.1	60
24	Water and thermal regimes for field pea in Australia and their implications for breeding. Crop and Pasture Science, 2012, 63, 33.	1.5	54
25	Model-assisted phenotyping and ideotype design. , 2015, , 349-373.		54
26	Velocity of temperature and flowering time in wheat â€" assisting breeders to keep pace with climate change. Global Change Biology, 2016, 22, 921-933.	9.5	53
27	Characterizing the crop environment â€" nature, significance and applications. , 2015, , 321-348.		49
28	Projected impact of future climate on water-stress patterns across the Australian wheatbelt. Journal of Experimental Botany, 2017, 68, 5907-5921.	4.8	49
29	Integrated responses of rosette organogenesis, morphogenesis and architecture to reduced incident light in Arabidopsis thaliana results in higher efficiency of light interception. Functional Plant Biology, 2005, 32, 1123.	2.1	48
30	Fusion of Sentinel-2 and PlanetScope time-series data into daily 3Âm surface reflectance and wheat LAI monitoring. International Journal of Applied Earth Observation and Geoinformation, 2021, 96, 102260.	2.8	44
31	Heat shocks increasingly impede grain filling but have little effect on grain setting across the Australian wheatbelt. Agricultural and Forest Meteorology, 2020, 284, 107889.	4.8	40
32	Sowing date detection at the field scale using CubeSats remote sensing. Computers and Electronics in Agriculture, 2019, 157, 568-580.	7.7	39
33	Using a 3-D Virtual Sunflower to Simulate Light Capture at Organ, Plant and Plot Levels: Contribution of Organ Interception, Impact of Heliotropism and Analysis of Genotypic Differences. Annals of Botany, 2007, 101, 1139-1151.	2.9	38
34	Nitrogen nutrition index predicted by a crop model improves the genomic prediction of grain number for a bread wheat core collection. Field Crops Research, 2017, 214, 331-340.	5.1	34
35	Patterns of water stress and temperature for Australian chickpea production. Crop and Pasture Science, 2016, 67, 204.	1.5	33
36	From QTLs to Adaptation Landscapes: Using Genotype-To-Phenotype Models to Characterize GÃ—E Over Time. Frontiers in Plant Science, 2019, 10, 1540.	3.6	33

#	ARTICLE	IF	CITATIONS
37	Improving productivity of Australian wheat by adapting sowing date and genotype phenology to future climate. Climate Risk Management, 2021, 32, 100300.	3.2	32
38	Relative contributions of light interception and radiation use efficiency to the reduction of maize productivity under cold temperatures. Functional Plant Biology, 2008, 35, 885.	2.1	28
39	A low-cost method to rapidly and accurately screen for transpiration efficiency in wheat. Plant Methods, 2018, 14, 77.	4.3	28
40	Evolution and application of digital technologies to predict crop type and crop phenology in agriculture. In Silico Plants, 2021, 3, .	1.9	27
41	Characterisation of chickpea cropping systems in Australia for major abiotic production constraints. Field Crops Research, 2017, 204, 120-134.	5.1	26
42	Selection in Early Generations to Shift Allele Frequency for Seminal Root Angle in Wheat. Plant Genome, 2018, 11, 170071.	2.8	23
43	The Value of Tactical Adaptation to El NiÃ±oâ€“Southern Oscillation for East Australian Wheat. Climate, 2018, 6, 77.	2.8	21
44	Estimation of light interception in research environments: a joint approach using directional light sensors and 3D virtual plants applied to sunflower (Helianthus annuus) and Arabidopsis thaliana in natural and artificial conditions. Functional Plant Biology, 2008, 35, 850.	2.1	19
45	Risk assessment of frost damage to sugar beet simulated under cold and semi-arid environments. International Journal of Biometeorology, 2019, 63, 511-521.	3.0	19
46	Limiting transpiration rate in high evaporative demand conditions to improve Australian wheat productivity. In Silico Plants, 2021, 3, .	1.9	19
47	Simulations of virtual plants reveal a role for SERRATE in the response of leaf development to light in Arabidopsis thaliana. New Phytologist, 2007, 175, 472-481.	7.3	17
48	QTL identified for stay-green in a multi-reference nested association mapping population of wheat exhibit context dependent expression and parent-specific alleles. Field Crops Research, 2021, 270, 108181.	5.1	16
49	How does post-flowering heat impact grain growth and its determining processes in wheat?. Journal of Experimental Botany, 2021, 72, 6596-6610.	4.8	14
50	Direct and Indirect Costs of Frost in the Australian Wheatbelt. Ecological Economics, 2018, 150, 122-136.	5.7	13
51	Early vigour in wheat: Could it lead to more severe terminal drought stress under elevated atmospheric [CO₂] and semiâ€arid conditions?. Global Change Biology, 2020, 26, 4079-4093.	9.5	13
52	Economic assessment of wheat breeding options for potential improved levels of post head-emergence frost tolerance. Field Crops Research, 2017, 213, 75-88.	5.1	11
53	Unsupervised Plot-Scale LAI Phenotyping via UAV-Based Imaging, Modelling, and Machine Learning. Plant Phenomics, 2022, 2022, .	5.9	11
54	Genotype-specific P-spline response surfaces assist interpretation of regional wheat adaptation to climate change. In Silico Plants, 2021, 3, .	1.9	8

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55	High-throughput Phenotyping of Wheat Seminal Root Traits in a Breeding Context. Procedia Environmental Sciences, 2015, 29, 102-103.	1.4	7
56	Barley. , 2021, , 164-195.		6
57	Recent Trends in Drought, Heat and Frost-Induced Yield Losses Across the Australian Wheatbelt. Proceedings (mdpi), 2019, 36, .	0.2	6
58	Editorial: Enviromics in Plant Breeding. Frontiers in Plant Science, 0, 13, .	3.6	5
59	Increasing Heat Tolerance in Wheat to Counteract Recent and Projected Increases in Heat Stress. Proceedings (mdpi), 2020, 36, .	0.2	4
60	Variation in Australian durum wheat germplasm for productivity traits under irrigated and rainfed conditions: genotype performance for agronomic traits and benchmarking. Journal of Agricultural Science, 2020, 158, 479-495.	1.3	4
61	Projected Impact of Future Climate on Drought Patterns in Complex Rainfed Environments. Procedia Environmental Sciences, 2015, 29, 190-191.	1.4	2
62	The Concepts of Seed Germination Rate and Germinability: A Re-Evaluation for Cool-Season Grasses. Agronomy, 2022, 12, 1291.	3.0	2
63	Using Crop Modelling to Improve Chickpea Adaptation in Variable Environments. , 2021, , 231-254.		1
64	Sentinel-2 and Planetscope Data Fusion into Daily 3 M Images for Leaf Area Index Monitoring. , 2020, , .		1
65	Combining Trait Physiology, Crop Modelling and Molecular Genetics to Improve Wheat Adaptation to Terminal Water-Stress Targeting Stay-Green and Root Traits. Proceedings (mdpi), 2020, 36, .	0.2	0
66	Integrating Crop Modelling, Physiology, Genetics and Breeding to Aid Crop Improvement for Changing Environments in the Australian Wheatbelt. Proceedings (mdpi), 2019, 36, 4.	0.2	0