Toshichika Iizumi

List of Publications by Year
in descending order

79 papers	3,992 citations	172386 29 h-index	128225 60 g-index
85 all docs	85 docs citations	85 times ranked	4207 citing authors

#	Article	IF	Citations
1	Data-driven projections suggest large opportunities to improve Europeâ€™s soybean self-sufficiency under climate change. Nature Food, 2022, 3, 255-265.	6.2	26
2	Assessing the subnational-level yield forecast skills of the 2019/20 season NARO-APCC Joint Crop Forecasting Service for Southern Hemisphere countries. J Agricultural Meteorology, 2022, 78, 66-77.	0.8	2
3	Rising temperatures and increasing demand challenge wheat supply in Sudan. Nature Food, 2021, 2, 19-27.	6.2	37
4	Global Within-Season Yield Anomaly Prediction for Major Crops Derived Using Seasonal Forecasts of Large-Scale Climate Indices and Regional Temperature and Precipitation. Weather and Forecasting, 2021, 36, 285-299.	0.5	11
5	Strong regional influence of climatic forcing datasets on global crop model ensembles. Agricultural and Forest Meteorology, 2021, 300, 108313.	1.9	17
6	Relationship of irrigated wheat yield with temperature in hot environments of Sudan. Theoretical and Applied Climatology, 2021, 145, 1113-1125.	1.3	11
7	Evaluating the 2019 NARO-APCC Joint Crop Forecasting Service Yield Forecasts for Northern Hemisphere Countries. Weather and Forecasting, 2021, 36, 879-891.	0.5	5
8	Reproducing complex simulations of economic impacts of climate change with lower-cost emulators. Geoscientific Model Development, 2021, 14, 3121-3140.	1.3	4
9	A review of global gridded cropping system data products. Environmental Research Letters, 2021, 16, 093005.	2.2	26
10	Aligning the harvesting year in global gridded crop model simulations with that in census reports is pivotal to national-level model performance evaluations for rice. European Journal of Agronomy, 2021, 130, 126367.	1.9	10
11	Climate impacts on global agriculture emerge earlier in new generation of climate and crop models. Nature Food, 2021, 2, 873-885.	6.2	263
12	Soil carbon-food synergy: sizable contributions of small-scale farmers. CABI Agriculture and Bioscience, 2021, 2, .	1.1	7
13	A multi-model analysis of teleconnected crop yield variability in a range of cropping systems. Earth System Dynamics, 2020, 11, 113-128.	2.7	21
14	The global dataset of historical yields for major crops 1981â€“2016. Scientific Data, 2020, 7, 97.	2.4	78
15	Seasonal Predictability of Four Major Crop Yields Worldwide by a Hybrid System of Dynamical Climate Prediction and Eco-Physiological Crop-Growth Simulation. Frontiers in Sustainable Food Systems, 2020, 4, .	1.8	8
16	Evaluation of Two Bias-Correction Methods for Gridded Climate Scenarios over Japan. Scientific Online Letters on the Atmosphere, 2020, 16, 80-85.	0.6	24
17	Climate change adaptation cost and residual damage to global crop production. Climate Research, 2020, 80, 203-218.	0.4	15
18	Systemic Risk in Global Agricultural Markets and Trade Liberalization under Climate Change: Synchronized Crop-Yield Change and Agricultural Price Volatility. Sustainability, 2020, 12, 10680.	1.6	14

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19	MIROC-INTEG-LAND version 1: a global biogeochemical land surface model with human water management, crop growth, and land-use change. Geoscientific Model Development, 2020, 13, 4713-4747.	1.3	14
20	Evaluating irrigated rice yields in Japan within the Climate Zonation Scheme of the Global Yield Gap Atlas. Journal of Agricultural Science, 2020, 158, 718-729.	0.6	2
21	Evidence of crop production losses in West Africa due to historical global warming in two crop models. Scientific Reports, 2019, 9, 12834.	1.6	136
22	Dependence of economic impacts of climate change on anthropogenically directed pathways. Nature Climate Change, 2019, 9, 737-741.	8.1	49
23	Global Patterns of Crop Production Losses Associated with Droughts from 1983 to 2009. Journal of Applied Meteorology and Climatology, 2019, 58, 1233-1244.	0.6	158
24	Modeling the Global Sowing and Harvesting Windows of Major Crops Around the Year 2000. Journal of Advances in Modeling Earth Systems, 2019, 11, 99-112.	1.3	31
25	Leveraging drought risk reduction for sustainable food, soil and climate via soil organic carbon sequestration. Scientific Reports, 2019, 9, 19744.	1.6	44
26	Visualizing the Interconnections Among Climate Risks. Earth's Future, 2019, 7, 85-100.	2.4	24
27	Recent Improvements to Global Seasonal Crop Forecasting and Related Research. , 2019, , 97-110.		3
28	Macroeconomic Impacts of Climate Change Driven by Changes in Crop Yields. Sustainability, 2018, 10, 3673.	1.6	27
29	Crop production losses associated with anthropogenic climate change for 1981â€“2010 compared with preindustrial levels. International Journal of Climatology, 2018, 38, 5405-5417.	1.5	70
30	Uncertainties of potentials and recent changes in global yields of major crops resulting from census- and satellite-based yield datasets at multiple resolutions. PLoS ONE, 2018, 13, e0203809.	1.1	37
31	Varying Benefits of Irrigation Expansion for Crop Production Under a Changing Climate and Competitive Water Use Among Crops. Earth's Future, 2018, 6, 1207-1220.	2.4	15
32	Emerging research topics in agricultural meteorology and assessment of climate change adaptation. J Agricultural Meteorology, 2018, 74, 54-59.	0.8	9
33	Global crop yield forecasting using seasonal climate information from a multi-model ensemble. Climate Services, 2018, 11, 13-23.	1.0	80
34	Responses of crop yield growth to global temperature and socioeconomic changes. Scientific Reports, 2017, 7, 7800.	1.6	146
35	Spatial and temporal uncertainty of crop yield aggregations. European Journal of Agronomy, 2017, 88, 10-21.	1.9	63
36	Contributions of different biasâ€correction methods and reference meteorological forcing data sets to uncertainty in projected temperature and precipitation extremes. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7800-7819.	1.2	84

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37	Global gridded crop model evaluation: benchmarking, skills, deficiencies and implications. Geoscientific Model Development, 2017, 10, 1403-1422.	1.3	213
38	Changes in yield variability of major crops for 1981â€“2010 explained by climate change. Environmental Research Letters, 2016, 11, 034003.	2.2	155
39	Prediction of future methane emission from irrigated rice paddies in central Thailand under different water management practices. Science of the Total Environment, 2016, 566-567, 641-651.	3.9	21
40	Varying applicability of four different satellite-derived soil moisture products to global gridded crop model evaluation. International Journal of Applied Earth Observation and Geoinformation, 2016, 48, 51-60.	1.4	16
41	Technological spillover in Japanese rice productivity under long-term climate change: evidence from the spatial econometric model. Paddy and Water Environment, 2016, 14, 131-144.	1.0	8
42	Modeling irrigationâ€based climate change adaptation in agriculture: Model development and evaluation in Northeast China. Journal of Advances in Modeling Earth Systems, 2015, 7, 1409-1424.	1.3	23
43	The Global Gridded Crop Model Intercomparison: data and modeling protocols for Phase 1 (v1.0). Geoscientific Model Development, 2015, 8, 261-277.	1.3	190
44	How do weather and climate influence cropping area and intensity?. Global Food Security, 2015, 4, 46-50.	4.0	299
45	Soil organic carbon sequestration in upland soils of northern China under variable fertilizer management and climate change scenarios. Global Biogeochemical Cycles, 2014, 28, 319-333.	1.9	81
46	Historical changes in global yields: major cereal and legume crops from 1982 to 2006. Global Ecology and Biogeography, 2014, 23, 346-357.	2.7	115
47	Impacts of El NiÃ±o Southern Oscillation on the global yields of major crops. Nature Communications, 2014, 5, 3712.	5.8	273
48	Dependency of parameter values of a crop model on the spatial scale of simulation. Journal of Advances in Modeling Earth Systems, 2014, 6, 527-540.	1.3	26
49	A modeling approach for assessing rice cropping cycle affected by flooding, salinity intrusion, and monsoon rains in the Mekong Delta, Vietnam. Paddy and Water Environment, 2014, 12, 343-354.	1.0	24
50	Is long-term climate change beneficial or harmful for rice total factor productivity in Japan: evidence from a panel data analysis. Paddy and Water Environment, 2014, 12, 213-225.	1.0	15
51	A meteorological forcing data set for global crop modeling: Development, evaluation, and intercomparison. Journal of Geophysical Research D: Atmospheres, 2014, 119, 363-384.	1.2	38
52	How much has the increase in atmospheric CO2 directly affected past soybean production?. Scientific Reports, 2014, 4, 4978.	1.6	54
53	Influences of Climate Change and Spatial Dependence on Rice Total Factor Productivity: Evidence from Spatial Econometric Models. Studies in Regional Science, 2014, 44, 305-325.	0.1	3
54	Contributions of historical changes in sowing date and climate to U.S. maize yield trend: An evaluation using large-area crop modeling and data assimilation. J Agricultural Meteorology, 2014, 70, 73-90.	0.8	11

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55	Prediction of seasonal climate-induced variations in global food production. Nature Climate Change, 2013, 3, 904-908.	8.1	143
56	An ensemble approach to the representation of subgrid-scale heterogeneity of crop phenology and yield in coarse-resolution large-area crop models. J Agricultural Meteorology, 2013, 69, 243-254.	0.8	6
57	Estimation of the damage area due to tropical cyclones using fragility curves for paddy rice in Japan. Environmental Research Letters, 2012, 7, 014020.	2.2	23
58	ELPIS-JP: a dataset of local-scale daily climate change scenarios for Japan. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 1121-1139.	1.6	28
59	Impacts of landâ€use changes on surface warming rates and rice yield in Shikoku, western Japan. Geophysical Research Letters, 2012, 39, .	1.5	11
60	Future change of daily precipitation indices in Japan: A stochastic weather generatorâ€based bootstrap approach to provide probabilistic climate information. Journal of Geophysical Research, 2012, 117, .	3.3	38
61	Inversely estimating temperature sensitivity of soil carbon decomposition by assimilating a turnover model and long-term field data. Soil Biology and Biochemistry, 2012, 46, 191-199.	4.2	14
62	Statistical downscaling with Bayesian inference: Estimating global solar radiation from reanalysis and limited observed data. International Journal of Climatology, 2012, 32, 464-480.	1.5	12
63	Climate Downscaling as a Source of Uncertainty in Projecting Local Climate Change Impacts. Journal of the Meteorological Society of Japan, 2012, 90B, 83-90.	0.7	12
64	Time trends and variations in mean and accumulated solar radiation for the ripening period of paddy rice in Kyushu for 1979-2007. J Agricultural Meteorology, 2012, 68, 69-76.	0.8	6
65	Evaluation and intercomparison of downscaled daily precipitation indices over Japan in present-day climate: Strengths and weaknesses of dynamical and bias correction-type statistical downscaling methods. Journal of Geophysical Research, 2011, 116, .	3.3	75
66	Probabilistic evaluation of climate change impacts on paddy rice productivity in Japan. Climatic Change, 2011, 107, 391-415.	1.7	66
67	Modeling the multiple effects of temperature and radiation on rice quality. Environmental Research Letters, 2011, 6, 034031.	2.2	20
68	Projecting climate change impacts both on rice quality and yield in Japan. J Agricultural Meteorology, 2011, 67, 285-295.	0.8	19
69	Introduction to climate change scenario derived by statistical downscaling. J Agricultural Meteorology, 2010, 66, 131-143.	0.8	40
70	Diagnostics of Climate Model Biases in Summer Temperature and Warm-Season Insolation for the Simulation of Regional Paddy Rice Yield in Japan. Journal of Applied Meteorology and Climatology, 2010, 49, 574-591.	0.6	20
71	Potential Predictability of Local Paddy Rice Yield Variation Using a Crop Model with Local Areal Information. Agricultural Information Research, 2010, 19, 36-42.	0.2	3
72	A climatological analysis on the recent declining trend of rice quality in Japan. J Agricultural Meteorology, 2009, 65, 327-337.	0.8	14

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73	Parameter estimation and uncertainty analysis of a large-scale crop model for paddy rice: Application of a Bayesian approach. Agricultural and Forest Meteorology, 2009, 149, 333-348.	1.9	165
74	Mesh Climate Change Data of Japan Ver.2 for Climate Change Impact Assessments Under IPCC SRES A1B and A2. J Agricultural Meteorology, 2009, 65, 97-109.	0.8	33
75	Development of impact functions on regional paddy rice yield in Japan for integrated impact assessment models. J Agricultural Meteorology, 2009, 65, 179-190.	0.8	7
76	Climate Change Impact on Rice Insurance Payouts in Japan. Journal of Applied Meteorology and Climatology, 2008, 47, 2265-2278.	0.6	17
77	Combined Equations for Estimating Global Solar Radiation: Projection of Radiation Field over Japan under Global Warming Conditions by Statistical Downscaling. J Agricultural Meteorology, 2008, 64, 9-23.	0.8	19
78	Influence on Rice Production in Japan from Cool and Hot Summers after Global Warming. J Agricultural Meteorology, 2007, 63, 11-23.	0.8	21
79	Impact of Global Warming on Rice Production in Japan Based on Five Coupled Atmosphere-Ocean GCMs. Scientific Online Letters on the Atmosphere, 2006, 2, 156-159.	0.6	15