Juraj Balkovic

List of Publications by Year
in descending order

49 papers	3,279 citations	185998 28 h-index	205818 48 g-index
52 all docs	52 docs citations	52 times ranked	4314 citing authors

#	Article	IF	Citations
1	Consistent negative response of US crops to high temperatures in observations and crop models. Nature Communications, 2017, 8, 13931.	5.8	321
2	Climate change impact and adaptation for wheat protein. Global Change Biology, 2019, 25, 155-173.	4.2	312
3	Climate impacts on global agriculture emerge earlier in new generation of climate and crop models. Nature Food, 2021, 2, 873-885.	6.2	263
4	Impacts of population growth, economic development, and technical change on global food production and consumption. Agricultural Systems, 2011, 104, 204-215.	3.2	226
5	Global gridded crop model evaluation: benchmarking, skills, deficiencies and implications. Geoscientific Model Development, 2017, 10, 1403-1422.	1.3	213
6	Uncertainty in soil data can outweigh climate impact signals in global crop yield simulations. Nature Communications, 2016, 7, 11872.	5.8	179
7	Global exposure and vulnerability to multi-sector development and climate change hotspots. Environmental Research Letters, 2018, 13, 055012.	2.2	162
8	Pan-European crop modelling with EPIC: Implementation, up-scaling and regional crop yield validation. Agricultural Systems, 2013, 120, 61-75.	3.2	127
9	The global cropland-sparing potential of high-yield farming. Nature Sustainability, 2020, 3, 281-289.	11.5	121
10	Global wheat production potentials and management flexibility under the representative concentration pathways. Global and Planetary Change, 2014, 122, 107-121.	1.6	110
11	Global wheat production with 1.5 and 2.0Â°C above preâ€industrial warming. Global Change Biology, 2019, 25, 1428-1444.	4.2	107
12	Understanding the weather signal in national cropâ€yield variability. Earth's Future, 2017, 5, 605-616.	2.4	85
13	To burn or retain crop residues on croplands? An integrated analysis of crop residue management in China. Science of the Total Environment, 2019, 662, 141-150.	3.9	76
14	African crop yield reductions due to increasingly unbalanced Nitrogen and Phosphorus consumption. Global Change Biology, 2014, 20, 1278-1288.	4.2	67
15	Spatial and temporal uncertainty of crop yield aggregations. European Journal of Agronomy, 2017, 88, 10-21.	1.9	63
16	A calibration procedure to improve global rice yield simulations with EPIC. Ecological Modelling, 2014, 273, 128-139.	1.2	60
17	The Global Gridded Crop Model Intercomparison phase 1 simulation dataset. Scientific Data, 2019, 6, 50.	2.4	57
18	Analyzing and modelling the effect of long-term fertilizer management on crop yield and soil organic carbon in China. Science of the Total Environment, 2018, 627, 361-372.	3.9	45

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19	Can climate-smart agriculture reverse the recent slowing of rice yield growth in China?. Agriculture, Ecosystems and Environment, 2014, 196, 125-136.	2.5	44
20	Parameterization-induced uncertainties and impacts of crop management harmonization in a global gridded crop model ensemble. PLoS ONE, 2019, 14, e0221862.	1.1	42
21	Global patterns of crop yield stability under additional nutrient and water inputs. PLoS ONE, 2018, 13, e0198748.	1.1	40
22	Towards an assessment of adaptive capacity of the European agricultural sector to droughts. Climate Services, 2017, 7, 47-63.	1.0	39
23	The GGCMI Phase 2 experiment: global gridded crop model simulations under uniform changes in CO₂, temperature, water, and nitrogen levels (protocol) Tj ETQq1 1 0.784314 rg BT /Overloc	1.4	38
24	Calibrationâ€‹induced uncertainty of the EPIC model to estimate climate change impact on global maize yield. Journal of Advances in Modeling Earth Systems, 2016, 8, 1358-1375.	1.3	37
25	Changes in soil organic carbon stocks of wetlands on China's Zoige plateau from 1980 to 2010. Ecological Modelling, 2016, 327, 18-28.	1.2	37
26	The dynamic soil organic carbon mitigation potential of European cropland. Global Environmental Change, 2015, 35, 269-278.	3.6	34
27	Impacts and Uncertainties of +2Â°C of Climate Change and Soil Degradation on European Crop Calorie Supply. Earth's Future, 2018, 6, 373-395.	2.4	33
28	Increasing crop production in Russia and Ukraineâ€"regional and global impacts from intensification and recultivation. Environmental Research Letters, 2018, 13, 025008.	2.2	31
29	Storylines of weather-induced crop failure events under climate change. Earth System Dynamics, 2021, 12, 1503-1527.	2.7	27
30	Spatially explicit life cycle impact assessment for soil erosion from global crop production. Ecosystem Services, 2018, 30, 220-227.	2.3	25
31	Affordable Nutrient Solutions for Improved Food Security as Evidenced by Crop Trials. PLoS ONE, 2013, 8, e60075.	1.1	24
32	Calibration and Validation of the EPIC Model for Maize Production in the Eastern Cape, South Africa. Agronomy, 2019, 9, 494.	1.3	23
33	Water productivity and footprint of major Brazilian rainfed crops â€" A spatially explicit analysis of crop management scenarios. Agricultural Water Management, 2020, 233, 105996.	2.4	23
34	The consolidated European synthesis of CO₂ emissions and removals for the European Union and United Kingdom: 1990â€"2018. Earth System Science Data, 2021, 13, 2363-2406.	3.7	23
35	Dynamic soil functions assessment employing land use and climate scenarios at regional scale. Journal of Environmental Management, 2021, 287, 112318.	3.8	19
36	Strong regional influence of climatic forcing datasets on global crop model ensembles. Agricultural and Forest Meteorology, 2021, 300, 108313.	1.9	17

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37	Experience with using Ellenbergâ€™s R indicator values in Slovakia: Oligotrophic and mesotrophic submontane broad-leaved forests. Biologia (Poland), 2012, 67, 474-482.	0.8	15
38	Recursive cross-entropy downscaling model for spatially explicit future land uses: A case study of the Heihe River Basin. Physics and Chemistry of the Earth, 2015, 89-90, 56-64.	1.2	13
39	Large scale extreme risk assessment using copulas: an application to drought events under climate change for Austria. Computational Management Science, 2019, 16, 651-669.	0.8	12
40	Simulated impact of paleoclimate change on Fremont Native American maize farming in Utah, 850â€“1449 CE, using crop and climate models. Quaternary International, 2019, 507, 95-107.	0.7	10
41	AgroTutor: A Mobile Phone Application Supporting Sustainable Agricultural Intensification. Sustainability, 2020, 12, 9309.	1.6	8
42	Uncertainties, sensitivities and robustness of simulated water erosion in an EPIC-based global gridded crop model. Biogeosciences, 2020, 17, 5263-5283.	1.3	7
43	Verifiable soil organic carbon modelling to facilitate regional reporting of cropland carbon change: A test case in the Czech Republic. Journal of Environmental Management, 2020, 274, 111206.	3.8	6
44	Using EPIC to simulate the effects of different irrigation and fertilizer levels on maize yield in the Eastern Cape, South Africa. Agricultural Water Management, 2021, 254, 106974.	2.4	6
45	The impact of water erosion on global maize and wheat productivity. Agriculture, Ecosystems and Environment, 2021, 322, 107655.	2.5	6
46	Indicating Soil Acidity Using Vegetation RelevÃ©s in Spatially Limited Areas â€“ Case Study from the PovaÅ¾skÃ½ Inovec, Slovakia. Folia Geobotanica, 2010, 45, 253-277.	0.4	5
47	Heterogeneous Compute Clusters and Massive Environmental Simulations Based on the EPIC Model. Modelling, 2020, 1, 215-224.	0.8	5
48	A Risk-Informed Decision-Making Framework for Climate Change Adaptation through Robust Land Use and Irrigation Planning. Sustainability, 2022, 14, 1430.	1.6	5
49	The Value of Global Earth Observations. , 2017, , 137-142.		1