

# John Koestel

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

47 papers	1,477 citations	23 h-index	38 g-index
59 ext. papers	1,861 ext. citations	6 avg, IF	5.18 L-index

#	Paper	IF	Citations
47	Relations between soil organic carbon content and the pore size distribution for an arable topsoil with large variations in soil properties. <i>European Journal of Soil Science</i> , <b>2022</b> , 73,	3.4	4
46	Nanoplastic Transport in Soil via Bioturbation by. <i>Environmental Science &amp; Technology</i> , <b>2021</b> ,	10.3	3
45	Changes in pore networks and readily dispersible soil following structure liming of clay soils. <i>Geoderma</i> , <b>2021</b> , 390, 114948	6.7	1
44	Soil structure recovery following compaction: Short-term evolution of soil physical properties in a loamy soil. <i>Soil Science Society of America Journal</i> , <b>2021</b> , 85, 1002-1020	2.5	4
43	Extreme gas production in anthropogenic fibrous sediments: An overlooked biogenic source of greenhouse gas emissions. <i>Science of the Total Environment</i> , <b>2021</b> , 781, 146772	10.2	0
42	Oxalate-extractable aluminum alongside carbon inputs may be a major determinant for organic carbon content in agricultural topsoils in humid continental climate. <i>Geoderma</i> , <b>2021</b> , 402, 115345	6.7	2
41	Approaches to delineate aggregates in intact soil using X-ray imaging. <i>Geoderma</i> , <b>2021</b> , 402, 115360	6.7	3
40	Scale and REV analyses for porosity and pore connectivity measures in undisturbed soil. <i>Geoderma</i> , <b>2020</b> , 366, 114206	6.7	22
39	Dynamic upscaling of decomposition kinetics for carbon cycling models. <i>Geoscientific Model Development</i> , <b>2020</b> , 13, 1399-1429	6.3	13
38	Reply to: "Variables in the effect of land use on soil extrapore enzymatic activity and carbon stabilization" by Glenn (2020). <i>Nature Communications</i> , <b>2020</b> , 11, 6427	17.4	1
37	Percolation theory applied to soil tomography. <i>Geoderma</i> , <b>2020</b> , 357, 113959	6.7	5
36	A framework for modelling soil structure dynamics induced by biological activity. <i>Global Change Biology</i> , <b>2020</b> , 26, 5382-5403	11.4	22
35	Spatial patterns of extracellular enzymes: Combining X-ray computed micro-tomography and 2D zymography. <i>Soil Biology and Biochemistry</i> , <b>2019</b> , 135, 411-419	7.5	24
34	Microbial spatial footprint as a driver of soil carbon stabilization. <i>Nature Communications</i> , <b>2019</b> , 10, 3121	17.4	58
33	Quantifying Physical Properties of Three Sphagnum-Based Growing Media as Affected by Drying/Wetting Cycles. <i>Vadose Zone Journal</i> , <b>2019</b> , 18, 190033	2.7	4
32	Quantification of the structure evolution in a garden soil over the course of two years. <i>Geoderma</i> , <b>2019</b> , 338, 597-609	6.7	25
31	Assessing strategies to mitigate phosphorus leaching from drained clay soils. <i>Ambio</i> , <b>2018</b> , 47, 114-123	6.5	9

30	Impacts of off-road traffic on soil physical properties of forest clear-cuts: X-ray and laboratory analysis. <i>Scandinavian Journal of Forest Research</i> , <b>2018</b> , 33, 166-177	1.7	8
29	Effects of tillage and liming on macropore networks derived from X-ray tomography images of a silty clay soil. <i>Soil Use and Management</i> , <b>2018</b> , 34, 197-205	3.1	9
28	X-ray computed tomography to predict soil N <sub>2</sub> O production via bacterial denitrification and N <sub>2</sub> O emission in contrasting bioenergy cropping systems. <i>GCB Bioenergy</i> , <b>2018</b> , 10, 894-909	5.6	13
27	SoilJ: An ImageJ Plugin for the Semiautomatic Processing of Three-Dimensional X-ray Images of Soils. <i>Vadose Zone Journal</i> , <b>2018</b> , 17, 170062	2.7	31
26	Estimating the Permeability of Naturally Structured Soil From Percolation Theory and Pore Space Characteristics Imaged by X-Ray. <i>Water Resources Research</i> , <b>2018</b> , 54, 9255-9263	5.4	29
25	Reply to Comment on Understanding preferential flow in the vadose zone: Recent advances and future prospects by N. Jarvis et al. <i>Vadose Zone Journal</i> , <b>2017</b> , 16, vzt2017.01.0034r	2.7	8
24	Quantitative imaging of the 3-D distribution of cation adsorption sites in undisturbed soil. <i>Soil</i> , <b>2017</b> , 3, 177-189	5.8	4
23	Long-term effects of grass-clover leys on the structure of a silt loam soil in a cold climate. <i>Agriculture, Ecosystems and Environment</i> , <b>2017</b> , 247, 319-328	5.7	31
22	Pedotransfer Functions in Earth System Science: Challenges and Perspectives. <i>Reviews of Geophysics</i> , <b>2017</b> , 55, 1199-1256	23.1	186
21	Post-tillage evolution of structural pore space and saturated and near-saturated hydraulic conductivity in a clay loam soil. <i>Soil and Tillage Research</i> , <b>2017</b> , 165, 161-168	6.5	33
20	Connectivity and percolation of structural pore networks in a cultivated silt loam soil quantified by X-ray tomography. <i>Geoderma</i> , <b>2017</b> , 287, 71-79	6.7	77
19	Effects of subsoil compaction on hydraulic properties and preferential flow in a Swedish clay soil. <i>Soil and Tillage Research</i> , <b>2016</b> , 156, 91-98	6.5	52
18	Preferential Transport in Macropores is Reduced by Soil Organic Carbon. <i>Vadose Zone Journal</i> , <b>2016</b> , 15, vzt2016.03.0021	2.7	26
17	Understanding Preferential Flow in the Vadose Zone: Recent Advances and Future Prospects. <i>Vadose Zone Journal</i> , <b>2016</b> , 15, vzt2016.09.0075	2.7	115
16	Three-Dimensional Printing of Macropore Networks of an Undisturbed Soil Sample. <i>Vadose Zone Journal</i> , <b>2015</b> , 14, vzt2014.08.0111	2.7	18
15	Using boosted regression trees to explore key factors controlling saturated and near-saturated hydraulic conductivity. <i>European Journal of Soil Science</i> , <b>2015</b> , 66, 744-756	3.4	40
14	Imaging and quantification of preferential solute transport in soil macropores. <i>Water Resources Research</i> , <b>2014</b> , 50, 4357-4378	5.4	65
13	What determines the strength of preferential transport in undisturbed soil under steady-state flow?. <i>Geoderma</i> , <b>2014</b> , 217-218, 144-160	6.7	50

12	Relations between macropore network characteristics and the degree of preferential solute transport. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 5255-5269	5.5	78
11	Soil properties and susceptibility to preferential solute transport in tilled topsoil at the catchment scale. <i>Journal of Hydrology</i> , <b>2013</b> , 492, 190-199	6	37
10	Links between soil properties and steady-state solute transport through cultivated topsoil at the field scale. <i>Water Resources Research</i> , <b>2013</b> , 49, 790-807	5.4	40
9	Influence of soil, land use and climatic factors on the hydraulic conductivity of soil. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 5185-5195	5.5	117
8	Preferential Flow in a Pedological Perspective <b>2012</b> , 75-120		22
7	Evaluation of Nonparametric Shape Measures for Solute Breakthrough Curves. <i>Vadose Zone Journal</i> , <b>2011</b> , 10, 1261-1275	2.7	41
6	Comparison of Heterogeneous Transport Processes Observed with Electrical Resistivity Tomography in Two Soils. <i>Vadose Zone Journal</i> , <b>2010</b> , 9, 336-349	2.7	42
5	Imaging Brilliant Blue Stained Soil by Means of Electrical Resistivity Tomography. <i>Vadose Zone Journal</i> , <b>2009</b> , 8, 963-975	2.7	22
4	Noninvasive 3-D Transport Characterization in a Sandy Soil Using ERT: 1. Investigating the Validity of ERT-derived Transport Parameters. <i>Vadose Zone Journal</i> , <b>2009</b> , 8, 711-722	2.7	37
3	Noninvasive 3-D Transport Characterization in a Sandy Soil Using ERT: 2. Transport Process Inference. <i>Vadose Zone Journal</i> , <b>2009</b> , 8, 723-734	2.7	28
2	Controls of macropore network characteristics on preferential solute transport		2
1	Potential of combined neutron and X-ray imaging to quantify local carbon contents in soil. <i>European Journal of Soil Science</i> ,	3.4	2