Eric M Kramer

List of Publications by Year
in descending order

39 papers	3,141 citations	279798 23 h-index	302126 39 g-index
39 all docs	39 docs citations	39 times ranked	3343 citing authors

#	Article	IF	Citations
1	The auxin influx carrier LAX3 promotes lateral root emergence. Nature Cell Biology, 2008, 10, 946-954.	10.3	715
2	Root gravitropism requires lateral root cap and epidermal cells for transport and response to a mobile auxin signal. Nature Cell Biology, 2005, 7, 1057-1065.	10.3	514
3	Auxin transport through non-hair cells sustains root-hair development. Nature Cell Biology, 2009, 11, 78-84.	10.3	212
4	Auxin transport: a field in flux. Trends in Plant Science, 2006, 11, 382-386.	8.8	211
5	Systems Analysis of Auxin Transport in the <i>Arabidopsis</i> Root Apex Â. Plant Cell, 2014, 26, 862-875.	6.6	190
6	PIN and AUX/LAX proteins: their role in auxin accumulation. Trends in Plant Science, 2004, 9, 578-582.	8.8	149
7	Regulation of Solute Flux through Plasmodesmata in the Root Meristem Â Â. Plant Physiology, 2011, 155, 1817-1826.	4.8	109
8	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. Molecular Systems Biology, 2013, 9, 699.	7.2	104
9	Stress Condensation in Crushed Elastic Manifolds. Physical Review Letters, 1997, 78, 1303-1306.	7.8	89
10	The Advantages of a Tapered Whisker. PLoS ONE, 2010, 5, e8806.	2.5	80
11	Measurement of diffusion within the cell wall in living roots of Arabidopsis thaliana. Journal of Experimental Botany, 2007, 58, 3005-3015.	4.8	73
12	How Far Can a Molecule of Weak Acid Travel in the Apoplast or Xylem? Â. Plant Physiology, 2006, 141, 1233-1236.	4.8	68
13	Auxin-regulated cell polarity: an inside job?. Trends in Plant Science, 2009, 14, 242-247.	8.8	61
14	Universal power law in the noise from a crumpled elastic sheet. Physical Review E, 1996, 53, 1465-1469.	2.1	57
15	Computer models of auxin transport: a review and commentary. Journal of Experimental Botany, 2008, 59, 45-53.	4.8	56
16	Auxin metabolism rates and implications for plant development. Frontiers in Plant Science, 2015, 6, 150.	3.6	54
17	AuxV: a database of auxin transport velocities. Trends in Plant Science, 2011, 16, 461-463.	8.8	40
18	A Mathematical Model of Pattern Formation in the Vascular Cambium of Trees. Journal of Theoretical Biology, 2002, 216, 147-158.	1.7	35

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19	The carrier AUXIN RESISTANT (AUX1) dominates auxin flux into Arabidopsis protoplasts. New Phytologist, 2014, 204, 536-544.	7.3	35
20	Five popular misconceptions about osmosis. American Journal of Physics, 2012, 80, 694-699.	0.7	33
21	Singularities, structures, and scaling in deformedm-dimensional elastic manifolds. Physical Review E, 2001, 65, 016603.	2.1	31
22	Wood Grain Pattern Formation: A Brief Review. Journal of Plant Growth Regulation, 2006, 25, 290-301.	5.1	27
23	Osmosis is not driven by water dilution. Trends in Plant Science, 2013, 18, 195-197.	8.8	24
24	Avoidance model for soft particles. II. Positional ordering of charged rods. Physical Review E, 2000, 61, 6872-6878.	2.1	20
25	Auxin Gradients Are Associated with Polarity Changes in Trees. Science, 2008, 320, 1610-1610.	12.6	20
26	Limitations on the smooth confinement of an unstretchable manifold. Journal of Mathematical Physics, 2000, 41, 5107-5128.	1.1	19
27	A Mathematical Model of Auxin-mediated Radial Growth in Trees. Journal of Theoretical Biology, 2001, 208, 387-397.	1.7	16
28	Do Vacuoles Obscure the Evidence for Auxin Homeostasis?. Molecular Plant, 2016, 9, 4-6.	8.3	15
29	The von Karman equations, the stress function, and elastic ridges in high dimensions. Journal of Mathematical Physics, 1997, 38, 830-846.	1.1	14
30	Wood grain patterns at branch junctions: modeling and implications. Trees - Structure and Function, 2004, 18, 493.	1.9	13
31	Distribution functions for reversibly self-assembling spherocylinders. Physical Review E, 1998, 58, 5934-5947.	2.1	12
32	Observation of Topological Defects in the Xylem of Populus deltoides and Implications for the Vascular Cambium. Journal of Theoretical Biology, 1999, 200, 223-230.	1.7	10
33	Avoidance model for soft particles. I. Charged spheres and rods beyond the dilute limit. Journal of Chemical Physics, 1999, 110, 8825-8834.	3.0	9
34	Defect coarsening in a biological system: The vascular cambium of cottonwood trees. Physical Review E, 2003, 67, 041914.	2.1	7
35	Scaling Laws for Mitotic Chromosomes. Frontiers in Cell and Developmental Biology, 2021, 9, 684278.	3.7	7
36	A Transcriptomics and Comparative Genomics Analysis Reveals Gene Families with a Role in Body Plan Complexity. Frontiers in Plant Science, 2017, 8, 869.	3.6	5

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37	Defect coarsening and spin waves in the nonlinear Ïƒ model. Physical Review E, 1994, 50, 3594-3600.	2.1	3
38	Flowering plant immune repertoires expand under mycorrhizal symbiosis. Plant Direct, 2019, 3, e00125.	1.9	2
39	Oxygen uptake rates have contrasting responses to temperature in the root meristem and elongation zone. Physiologia Plantarum, 2022, 174, e13682.	5.2	2