

# Gábor Domokos

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

929  
citations

586496

16  
h-index

563245

28  
g-index

52  
all docs

52  
docs citations

52  
times ranked

1199  
citing authors

#	ARTICLE	IF	CITATIONS
1	Plato's Error and a Mean Field Formula for Convex Mosaics. <i>Axiomathes</i> , 2022, 32, 889-905.	0.3	2
2	On Some Average Properties of Convex Mosaics. <i>Experimental Mathematics</i> , 2022, 31, 783-793.	0.5	7
3	Mono-unstable polyhedra with point masses have at least 8 vertices. <i>International Journal of Solids and Structures</i> , 2022, 234-235, 111276.	1.3	3
4	Particle size dynamics in abrading pebble populations. <i>Earth Surface Dynamics</i> , 2021, 9, 235-251.	1.0	3
5	Curvature flows, scaling laws and the geometry of attrition under impacts. <i>Scientific Reports</i> , 2021, 11, 20661.	1.6	4
6	Tracking the critical points of curves evolving under planar curvature flows. <i>Journal of Computational Dynamics</i> , 2021, 8, 447.	0.4	1
7	Plato's cube and the natural geometry of fragmentation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18178-18185.	3.3	30
8	Balancing polyhedra. <i>Ars Mathematica Contemporanea</i> , 2020, 19, 95-124.	0.3	6
9	The Gombóc Pill. <i>Mathematical Intelligencer</i> , 2019, 41, 9-11.	0.1	3
10	Tracking Critical Points on Evolving Curves and Surfaces. <i>Experimental Mathematics</i> , 2019, , 1-20.	0.5	2
11	THE ISOPERIMETRIC QUOTIENT OF A CONVEX BODY DECREASES MONOTONICALLY UNDER THE EIKONAL ABRASION MODEL. <i>Mathematika</i> , 2019, 65, 119-129.	0.3	5
12	Shape evolution of ooids: a geometric model. <i>Scientific Reports</i> , 2018, 8, 1758.	1.6	13
13	The Evolution of Geological Shape Descriptors Under Distance-Driven Flows. <i>Mathematical Geosciences</i> , 2018, 50, 337-363.	1.4	3
14	Universal characteristics of particle shape evolution by bed-load chipping. <i>Science Advances</i> , 2018, 4, eaao4946.	4.7	32
15	Identification of Primary Shape Descriptors on 3D Scanned Particles. <i>Periodica Polytechnica Electrical Engineering and Computer Science</i> , 2018, 62, 59-64.	0.6	3
16	Natural Numbers, Natural Shapes. <i>Axiomathes</i> , 2018, , 1.	0.3	5
17	The Geometry of Abrasion. <i>Bolyai Society Mathematical Studies</i> , 2018, , 125-153.	0.3	5
18	A Shape Evolution Model Under Affine Transformations. <i>Mediterranean Journal of Mathematics</i> , 2017, 14, 1.	0.4	0

#	ARTICLE	IF	CITATIONS
19	Explaining the Elongated Shape of "Oumuamua by the Eikonal Abrasion Model. Research Notes of the AAS, 2017, 1, 50.	0.3	41
20	Quantitative modeling of facet development in ventifacts by sand abrasion. Aeolian Research, 2016, 20, 25-33.	1.1	9
21	Impressive abrasion rates of marked pebbles on a coarse-clastic beach within a 13-month timespan. Marine Geology, 2016, 381, 175-180.	0.9	25
22	Geologic history of Martian regolith breccia Northwest Africa 7034: Evidence for hydrothermal activity and lithologic diversity in the Martian crust. Journal of Geophysical Research E: Planets, 2016, 121, 2120-2149.	1.5	65
23	A Genealogy of Convex Solids Via Local and Global Bifurcations of Gradient Vector Fields. Journal of Nonlinear Science, 2016, 26, 1789-1815.	1.0	3
24	A topological classification of convex bodies. Geometriae Dedicata, 2016, 182, 95-116.	0.1	6
25	Universality of fragment shapes. Scientific Reports, 2015, 5, 9147.	1.6	79
26	On the average number of normals through points of a convex body. Studia Scientiarum Mathematicarum Hungarica, 2015, 52, 457-476.	0.1	0
27	Monotonicity of Spatial Critical Points Evolving Under Curvature-Driven Flows. Journal of Nonlinear Science, 2015, 25, 247-275.	1.0	9
28	Reconstructing the transport history of pebbles on Mars. Nature Communications, 2015, 6, 8366.	5.8	59
29	Circular, Stationary Profiles Emerging in Unidirectional Abrasion. Mathematical Geosciences, 2014, 46, 483-491.	1.4	1
30	Quantifying the significance of abrasion and selective transport for downstream fluvial grain size evolution. Journal of Geophysical Research F: Earth Surface, 2014, 119, 2412-2429.	1.0	70
31	THE ROBUSTNESS OF EQUILIBRIA ON CONVEX SOLIDS. Mathematika, 2014, 60, 237-256.	0.3	5
32	How River Rocks Round: Resolving the Shape-Size Paradox. PLoS ONE, 2014, 9, e88657.	1.1	111
33	Abrasion model of downstream changes in grain shape and size along the Williams River, Australia. Journal of Geophysical Research F: Earth Surface, 2013, 118, 2059-2071.	1.0	17
34	Spacetime Interpretation of Torsion in Prismatic Bodies. Journal of Elasticity, 2013, 110, 111-116.	0.9	2
35	On the equilibria of finely discretized curves and surfaces. Monatshefte Fur Mathematik, 2012, 168, 321-345.	0.5	10
36	Generating spherical multiquadrangulations by restricted vertex splittings and the reducibility of equilibrium classes. Periodica Mathematica Hungarica, 2012, 56, 11.	0.5	2

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37	The Mechanics of Rocking Stones: Equilibria on Separated Scales. <i>Mathematical Geosciences</i> , 2012, 44, 71-89.	1.4	13
38	Shell geometry and habitat determination in extinct and extant turtles (Reptilia: Testudinata). <i>Paleobiology</i> , 2011, 37, 547-562.	1.3	32
39	A Discrete Random Model Describing Bedrock Profile Abrasion. <i>Mathematical Geosciences</i> , 2011, 43, 583-591.	1.4	9
40	Pebbles, Shapes, and Equilibria. <i>Mathematical Geosciences</i> , 2010, 42, 29-47.	1.4	36
41	A new classification system for pebble and crystal shapes based on static equilibrium points. <i>Central European Geology</i> , 2010, 53, 1-19.	0.4	14
42	Continuous and discrete models for abrasion processes. <i>Periodica Polytechnica Architecture</i> , 2009, 40, 3-8.	0.1	15
43	Geometry and self-righting of turtles. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 11-17.	1.2	81
44	Imperfect symmetry: A new approach to structural optima via group representation theory. <i>International Journal of Solids and Structures</i> , 2007, 44, 4723-4741.	1.3	11
45	Symmetry, Optima and Bifurcations in Structural Design. <i>Nonlinear Dynamics</i> , 2006, 43, 47-58.	2.7	10
46	My lunch with Arnold. <i>Mathematical Intelligencer</i> , 2006, 28, 31-33.	0.1	5
47	Mono-monostatic bodies. <i>Mathematical Intelligencer</i> , 2006, 28, 34-38.	0.1	18
48	On the Nonlinear Response of Zero-Force Members. <i>International Journal of Mechanical Engineering Education</i> , 2006, 34, 175-182.	0.6	0
49	COARSE-GRAINED OBSERVATION OF DISCRETIZED MAPS. <i>World Scientific Series on Nonlinear Science, Series B</i> , 2006, , 165-174.	0.2	0
50	Discrete and continuous state population models in a noisy world. <i>Journal of Theoretical Biology</i> , 2004, 227, 535-545.	0.8	27
51	Hidden Symmetry of Global Solutions in Twisted Elastic Rings. <i>Journal of Nonlinear Science</i> , 2001, 11, 47-67.	1.0	17