Benny Davidovitch

List of Publications by Year
in descending order

30	1,234	394421 19	477307 29
papers	citations	h-index	g-index

31	31	31	1136
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prototypical model for tensional wrinkling in thin sheets. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18227-18232.	7.1	189
2	Elastic sheet on a liquid drop reveals wrinkling and crumpling as distinct symmetry-breaking instabilities. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9716-9720.	7.1	158
3	Smooth Cascade of Wrinkles at the Edge of a Floating Elastic Film. Physical Review Letters, 2010, 105, 038302.	7.8	103
4	Curvature-induced stiffness and the spatial variation of wavelength in wrinkled sheets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1144-1149.	7.1	88
5	Optimal wrapping of liquid droplets with ultrathinÂsheets. Nature Materials, 2015, 14, 1206-1209.	27.5	62
6	Roadmap to the Morphological Instabilities of a Stretched Twisted Ribbon. Journal of Elasticity, 2015, 119, 137-189.	1.9	57
7	Universal collapse of stress and wrinkle-to-scar transition in spherically confined crystalline sheets. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12893-12898.	7.1	54
8	Indentation of Ultrathin Elastic Films and the Emergence of Asymptotic Isometry. Physical Review Letters, 2015, 114, 014301.	7.8	52
9	Capillary interactions among spherical particles at curved liquid interfaces. Soft Matter, 2012, 8, 8582.	2.7	49
10	Geometrically incompatible confinement of solids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1483-1488.	7.1	45
11	A comparative analysis of numerical approaches to the mechanics of elastic sheets. Journal of the Mechanics and Physics of Solids, 2015, 79, 92-107.	4.8	44
12	Indentation metrology of clamped, ultra-thin elastic sheets. Soft Matter, 2017, 13, 2264-2278.	2.7	43
13	Elastic Building Blocks for Confined Sheets. Physical Review Letters, 2011, 106, 074301.	7.8	39
14	Sheet on a deformable sphere: Wrinkle patterns suppress curvature-induced delamination. Physical Review E, 2015, 91, 012407.	2.1	36
15	Partial wetting of thin solid sheets under tension. Soft Matter, 2018, 14, 4913-4934.	2.7	24
16	Van der Waals interaction affects wrinkle formation in two-dimensional materials. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	24
17	Geometry-Driven Folding of a Floating Annular Sheet. Physical Review Letters, 2017, 118, 048004.	7.8	23
18	Period fissioning and other instabilities of stressed elastic membranes. Physical Review E, 2009, 80, 025202.	2.1	22

#	Article	IF	Citations
19	Regimes of wrinkling in an indented floating elastic sheet. Physical Review E, 2018, 98, 013003.	2.1	22
20	Mechanics of large folds in thin interfacial films. Physical Review E, 2014, 90, 042401.	2.1	18
21	Stresses in thin sheets at fluid interfaces. Nature Materials, 2020, 19, 690-693.	27.5	16
22	From Cylindrical to Stretching Ridges and Wrinkles in Twisted Ribbons. Physical Review Letters, 2016, 117, 104301.	7.8	15
23	Mesoscale structure of wrinkle patterns and defect-proliferated liquid crystalline phases. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3938-3943.	7.1	13
24	Linear dynamics of ion sputtered surfaces: instability, stability and bifurcations. Journal of Physics Condensed Matter, 2009, 21, 224019.	1.8	12
25	Rucks and folds: delamination from a flat rigid substrate under uniaxial compression. European Physical Journal E, 2021, 44, 11.	1.6	9
26	Indentation of solid membranes on rigid substrates with van der Waals attraction. Physical Review E, 2021, 103, 043002.	2.1	7
27	Birth and decay of tensional wrinkles in hyperelastic sheets. Physical Review E, 2019, 100, 053003.	2.1	6
28	Stretching Hookean ribbons part I: relative edge extension underlies transverse compression and buckling instability. European Physical Journal E, 2021, 44, 92.	1.6	2
29	Roadmap to the Morphological Instabilities of a Stretched Twisted Ribbon. , 2016, , 137-189.		1
30	Stretching Hookean ribbons part II: from buckling instability to far-from-threshold wrinkle pattern. European Physical Journal E, 2021, 44, 94.	1.6	1