Jesse L Silverberg

List of Publications by Year
in descending order

22 papers	1,783 citations	623188 14 h-index	713013 21 g-index
22 all docs	22 docs citations	22 times ranked	2177 citing authors

#	Article	IF	Citations
1	Using origami design principles to fold reprogrammable mechanical metamaterials. Science, 2014, 345, 647-650.	6.0	714
2	Origami structures with a critical transition to bistability arising from hidden degrees of freedom. Nature Materials, 2015, 14, 389-393.	13.3	382
3	Collective Motion of Humans in Mosh and Circle Pits at Heavy Metal Concerts. Physical Review Letters, 2013, 110, 228701.	2.9	131
4	Topological kinematics of origami metamaterials. Nature Physics, 2018, 14, 811-815.	6.5	74
5	Structure-Function Relations and Rigidity Percolation in the Shear Properties of Articular Cartilage. Biophysical Journal, 2014, 107, 1721-1730.	0.2	68
6	3D imaging and mechanical modeling of helical buckling in Medicago truncatula plant roots. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16794-16799.	3.3	67
7	Lattice mechanics of origami tessellations. Physical Review E, 2015, 92, 013205.	0.8	65
8	Effects of enzymatic treatments on the depth-dependent viscoelastic shear properties of articular cartilage. Journal of Orthopaedic Research, 2014, 32, 1652-1657.	1.2	53
9	Decoupling local mechanics from large-scale structure in modular metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3590-3595.	3.3	43
10	Emergent Structural Mechanisms for High-Density Collective Motion Inspired by Human Crowds. Physical Review Letters, 2016, 117, 228301.	2.9	35
11	Anatomic variation of depthâ€dependent mechanical properties in neonatal bovine articular cartilage. Journal of Orthopaedic Research, 2013, 31, 686-691.	1.2	31
12	X-ray computed tomography uncovers rootâ€“root interactions: quantifying spatial relationships between interacting root systems in three dimensions. Frontiers in Plant Science, 2015, 6, 274.	1.7	27
13	Cyberphysical risks of hacked internet-connected vehicles. Physical Review E, 2019, 100, 012316.	0.8	23
14	Facilitated recruitment of mesenchymal stromal cells by bone marrow concentrate and platelet rich plasma. PLoS ONE, 2018, 13, e0194567.	1.1	18
15	How grow-and-switch gravitropism generates root coiling and root waving growth responses in Medicago truncatula. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12938-12943.	3.3	13
16	Morphological characteristics of subchondral bone cysts in medial femoral condyles of adult horses as determined by computed tomography. American Journal of Veterinary Research, 2016, 77, 265-274.	0.3	13
17	Emergent reconfigurable mechanical metamaterial tessellations with an exponentially large number of discrete configurations. Materials and Design, 2020, 196, 109143.	3.3	9
18	Classical analytical mechanics and entropy production. American Journal of Physics, 2007, 75, 993-996.	0.3	8

#	Article	IF	Citations
19	How to: Using Mode Analysis to Quantify, Analyze, and Interpret the Mechanisms of High-Density Collective Motion. Frontiers in Applied Mathematics and Statistics, 2017, 3, .	0.7	6
20	When dense crowds act like soft solids. Physics Today, 2019, 72, 70-71.	0.3	2
21	Mechanisms and phenomenology of phase separation. Physics of Life Reviews, 2016, 19, 137-138.	1.5	1
22	Molecular Atlas Imaging and Osteoclast Formation: Multiscale Study of Cell-Cell Fusion Mechanisms. Biophysical Journal, 2017, 112, 80a-81a.	0.2	0