

# Nathan C Keim

## List of Publications by Year in descending order

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Version: 2024-02-01

27  
papers

1,149  
citations

567281

15  
h-index

552781

26  
g-index

27  
all docs

27  
docs citations

27  
times ranked

1188  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure-property relationships from universal signatures of plasticity in disordered solids. <i>Science</i> , 2017, 358, 1033-1037.	12.6	218
2	Memory formation in matter. <i>Reviews of Modern Physics</i> , 2019, 91, .	45.6	142
3	Mechanical and Microscopic Properties of the Reversible Plastic Regime in a 2D Jammed Material. <i>Physical Review Letters</i> , 2014, 112, 028302.	7.8	110
4	Yielding and microstructure in a 2D jammed material under shear deformation. <i>Soft Matter</i> , 2013, 9, 6222.	2.7	79
5	Breakup of Air Bubbles in Water: Memory and Breakdown of Cylindrical Symmetry. <i>Physical Review Letters</i> , 2006, 97, 144503.	7.8	75
6	Fluid elasticity can enable propulsion at low Reynolds number. <i>Physics of Fluids</i> , 2012, 24, .	4.0	72
7	Generic Transient Memory Formation in Disordered Systems with Noise. <i>Physical Review Letters</i> , 2011, 107, 010603.	7.8	70
8	Multiple Transient Memories in Experiments on Sheared Non-Brownian Suspensions. <i>Physical Review Letters</i> , 2014, 113, 068301.	7.8	67
9	Undulatory swimming in shear-thinning fluids: experiments with <i>Caenorhabditis elegans</i> . <i>Journal of Fluid Mechanics</i> , 2014, 758, .	3.4	53
10	Memory-encoding vibrations in a disconnecting air bubble. <i>Nature Physics</i> , 2009, 5, 343-346.	16.7	28
11	Multiple transient memories in sheared suspensions: Robustness, structure, and routes to plasticity. <i>Physical Review E</i> , 2013, 88, 032306.	2.1	28
12	Role of disorder in finite-amplitude shear of a 2D jammed material. <i>Soft Matter</i> , 2015, 11, 1539-1546.	2.7	27
13	Global memory from local hysteresis in an amorphous solid. <i>Physical Review Research</i> , 2020, 2, .	3.6	26
14	Multiperiodic orbits from interacting soft spots in cyclically sheared amorphous solids. <i>Science Advances</i> , 2021, 7, .	10.3	17
15	Measuring material relaxation and creep recovery in a microfluidic device. <i>Lab on A Chip</i> , 2013, 13, 1850.	6.0	16
16	Chiral sedimentation of extended objects in viscous media. <i>Physical Review E</i> , 2009, 79, 056307.	2.1	15
17	Radio Polarization of the Young High-Magnetic-Field Pulsar PSR J1119-6127. <i>Astrophysical Journal</i> , 2003, 590, 1020-1025.	4.5	14
18	Minimal descriptions of cyclic memories. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20180874.	2.1	14

#	ARTICLE	IF	CITATIONS
19	Scaling of relaxation and excess entropy in plastically deformed amorphous solids. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11887-11893.	7.1	14
20	Structure and dynamics of self-assembling colloidal monolayers in oscillating magnetic fields. Physical Review E, 2013, 88, 062304.	2.1	13
21	Fluid-induced propulsion of rigid particles in wormlike micellar solutions. Physics of Fluids, 2014, 26, .	4.0	13
22	Tuning the rheology and microstructure of particle-laden fluid interfaces with Janus particles. Journal of Colloid and Interface Science, 2022, 618, 241-247.	9.4	12
23	Relationships between structure, memory and flow in sheared disordered materials. Nature Physics, 2022, 18, 565-570.	16.7	8
24	Enhancement of Curie temperature in Ga <sub>1-x</sub> Mn <sub>x</sub> As epilayers grown on cross-hatched In <sub>y</sub> Ga <sub>1-y</sub> As buffer layers. Journal of Crystal Growth, 2004, 269, 298-303.	1.5	7
25	Perturbed breakup of gas bubbles in water: Memory, gas flow, and coalescence. Physical Review E, 2011, 83, 056325.	2.1	7
26	Miniature magnetic rod interfacial stress rheometer for general-purpose microscopes. Journal of Rheology, 2021, 65, 1103-1110.	2.6	4
27	Non-Linear, Granular, and Fluid Physics. , 2020, , 327-340.		0