Chenfanfu Jiang

List of Publications by Year
in descending order

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47 papers	2,007 citations	279798 23 h-index	289244 40 g-index
47 all docs	47 docs citations	47 times ranked	576 citing authors

#	Article	IF	Citations
1	The affine particle-in-cell method. ACM Transactions on Graphics, 2015, 34, 1-10.	7.2	208
2	Augmented MPM for phase-change and varied materials. ACM Transactions on Graphics, 2014, 33, 1-11.	7.2	128
3	Drucker-prager elastoplasticity for sand animation. ACM Transactions on Graphics, 2016, 35, 1-12.	7.2	117
4	Incremental potential contact. ACM Transactions on Graphics, 2020, 39, .	7.2	108
5	A moving least squares material point method with displacement discontinuity and two-way rigid body coupling. ACM Transactions on Graphics, 2018, 37, 1-14.	7.2	106
6	Anisotropic elastoplasticity for cloth, knit and hair frictional contact. ACM Transactions on Graphics, 2017, 36, 1-14.	7.2	102
7	Multi-species simulation of porous sand and water mixtures. ACM Transactions on Graphics, 2017, 36, 1-11.	7.2	90
8	Optimization Integrator for Large Time Steps. IEEE Transactions on Visualization and Computer Graphics, 2015, 21, 1103-1115.	4.4	89
9	The material point method for simulating continuum materials. , 2016, , .		73
10	A polynomial particle-in-cell method. ACM Transactions on Graphics, 2017, 36, 1-12.	7.2	72
11	Animating fluid sediment mixture in particle-laden flows. ACM Transactions on Graphics, 2018, 37, 1-11.	7.2	69
12	A material point method for viscoelastic fluids, foams and sponges. , 2015, , .		67
13	CD-MPM. ACM Transactions on Graphics, 2019, 38, 1-15.	7.2	63
14	An angular momentum conserving affine-particle-in-cell method. Journal of Computational Physics, 2017, 338, 137-164.	3.8	57
15	GPU optimization of material point methods. ACM Transactions on Graphics, 2018, 37, 1-12.	7.2	52
16	Configurable 3D Scene Synthesis and 2D Image Rendering with Per-pixel Ground Truth Using Stochastic Grammars. International Journal of Computer Vision, 2018, 126, 920-941.	15.6	50
17	Codimensional incremental potential contact. ACM Transactions on Graphics, 2021, 40, 1-24.	7.2	48
18	An adaptive generalized interpolation material point method for simulating elastoplastic materials. ACM Transactions on Graphics, 2017, 36, 1-12.	7.2	44

#	Article	IF	Citations
19	Silly rubber. ACM Transactions on Graphics, 2019, 38, 1-13.	7.2	38
20	Investigating the release and flow of snow avalanches at the slope-scale using a unified model based on the material point method. Cold Regions Science and Technology, 2019, 168, 102847.	3.5	37
21	A massively parallel and scalable multi-GPU material point method. ACM Transactions on Graphics, 2020, 39, .	7.2	32
22	Intersection-free rigid body dynamics. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	28
23	Autonomous Precision Pouring From Unknown Containers. IEEE Robotics and Automation Letters, 2019, 4, 2317-2324.	5.1	26
24	Decomposed optimization time integrator for large-step elastodynamics. ACM Transactions on Graphics, 2019, 38, 1-10.	7.2	25
25	A hybrid materialâ€point spheropolygonâ€element method for solid and granular material interaction. International Journal for Numerical Methods in Engineering, 2020, 121, 3021-3047.	2.8	24
26	Hierarchical Optimization Time Integration for CFL-Rate MPM Stepping. ACM Transactions on Graphics, 2020, 39, 1-16.	7.2	24
27	Three-dimensional and real-scale modeling of flow regimes in dense snow avalanches. Landslides, 2021, 18, 3393-3406.	5.4	23
28	IQ-MPM. ACM Transactions on Graphics, 2020, 39, .	7.2	21
29	Position-based real-time simulation of large crowds. Computers and Graphics, 2019, 78, 12-22.	2.5	19
30	Medial IPC. ACM Transactions on Graphics, 2021, 40, 1-16.	7.2	18
31	Chemomechanical simulation of soap film flow on spherical bubbles. ACM Transactions on Graphics, 2020, 39, .	7.2	18
32	A Temporally Adaptive Material Point Method with Regional Time Stepping. Computer Graphics Forum, 2018, 37, 195-204.	3.0	16
33	The mechanical origin of snow avalanche dynamics and flow regime transitions. Cryosphere, 2020, 14, 3381-3398.	3.9	16
34	Mirroring without Overimitation: Learning Functionally Equivalent Manipulation Actions. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 8025-8033.	4.9	15
35	Fast and Scalable Position-Based Layout Synthesis. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 3231-3243.	4.4	14
36	Lagrangianâ€“Eulerian multidensity topology optimization with the material point method. International Journal for Numerical Methods in Engineering, 2021, 122, 3400-3424.	2.8	14

#	Article	IF	Citations
37	A barrier method for frictional contact on embedded interfaces. Computer Methods in Applied Mechanics and Engineering, 2022, 393, 114820.	6.6	13
38	BFEMP: Interpenetration-free MPMâ€“FEM coupling with barrier contact. Computer Methods in Applied Mechanics and Engineering, 2022, 390, 114350.	6.6	11
39	A glacierâ€“ocean interaction model for tsunami genesis due to iceberg calving. Communications Earth & Environment, 2021, 2, .	6.8	8
40	Position-based multi-agent dynamics for real-time crowd simulation. , 2017, , .		7
41	Different erosion and entrainment mechanisms in snow avalanches. Mechanics Research Communications, 2022, 124, 103914.	1.8	5
42	Codimensional incremental potential contact. ACM Transactions on Graphics, 2021, 40, 1-24.	7.2	4
43	Spatially Perturbed Collision Sounds Attenuate Perceived Causality in 3D Launching Events. , 2018, , .		3
44	Soft Hybrid Aerial Vehicle via Bistable Mechanism. , 2021, , .		3
45	Visualization of vascular injuries in extremity trauma. Medical and Biological Engineering and Computing, 2017, 55, 1709-1718.	2.8	2
46	Evaluating physical quantities and learning human utilities from RGBD videos. , 2016, , .		0
47	An Efficient B-Spline Lagrangian/Eulerian Method for Compressible Flow, Shock Waves, and Fracturing Solids. ACM Transactions on Graphics, 0, , .	7.2	0