Miguel A Otaduy

List of Publications by Year
in descending order

89 papers	2,688 citations	236925 25 h-index	233421 45 g-index
90 all docs	90 docs citations	90 times ranked	1440 citing authors

#	Article	IF	Citations
1	Parametric Skeletons with Reduced Soft‑Tissue Deformations. Computer Graphics Forum, 2021, 40, 34-46.	3.0	2
2	Natural Tactile Interaction with Virtual Clay. , 2021, , .		2
3	Learning contact corrections for handle-based subspace dynamics. ACM Transactions on Graphics, 2021, 40, 1-12.	7.2	1
4	Learning contact corrections for handle-based subspace dynamics. ACM Transactions on Graphics, 2021, 40, 1-12.	7.2	10
5	Soft-Tissue Simulation for Computational Planning of Orthognathic Surgery. Journal of Personalized Medicine, 2021, 11, 982.	2.5	8
6	Hands-On Deformation of Volumetric Anatomical Imageson a Touchscreen. Applied Sciences (Switzerland), 2021, 11, 9502.	2.5	3
7	Self-Supervised Collision Handling via Generative 3D Garment Models for Virtual Try-On. , 2021, , .		41
8	Fine Virtual Manipulation with Hands of Different Sizes. , 2021, , .		1
9	MakeSense: Automated Sensor Design for Proprioceptive Soft Robots. Soft Robotics, 2020, 7, 332-345.	8.0	70
10	Mixing Yarns and Triangles in Cloth Simulation. Computer Graphics Forum, 2020, 39, 101-110.	3.0	9
11	Perceived match between own and observed models' bodies: influence of face, viewpoints, and body size. Scientific Reports, 2020, 10, 13991.	3.3	6
12	Modeling and Estimation of Nonlinear Skin Mechanics for Animated Avatars. Computer Graphics Forum, 2020, 39, 77-88.	3.0	10
13	SoftSMPL: Data‑driven Modeling of Nonlinear Soft‑tissue Dynamics for Parametric Humans. Computer Graphics Forum, 2020, 39, 65-75.	3.0	26
14	Simulation of Dendritic Painting. Computer Graphics Forum, 2020, 39, 597-606.	3.0	4
15	Rendering of Constraints With Underactuated Haptic Devices. IEEE Transactions on Haptics, 2020, 13, 699-708.	2.7	3
16	Path Routing Optimization for STM Ultrasound Rendering. IEEE Transactions on Haptics, 2020, 13, 45-51.	2.7	12
17	Tactile rendering based on skin stress optimization. ACM Transactions on Graphics, 2020, 39, .	7.2	10
18	Robust eulerian-on-lagrangian rods. ACM Transactions on Graphics, 2020, 39, .	7.2	7

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19	Wearable and Hand-Held Haptics. IEEE Transactions on Haptics, 2019, 12, 227-231.	2.7	9
20	Learning‐Based Animation of Clothing for Virtual Try‐On. Computer Graphics Forum, 2019, 38, 355-366.	3.0	99
21	Rendering Strategies for Underactuated Hand Exoskeletons. IEEE Robotics and Automation Letters, 2018, 3, 2087-2092.	5.1	13
22	Strain Rate Dissipation for Elastic Deformations. Computer Graphics Forum, 2018, 37, 161-170.	3.0	8
23	Soft Hand Simulation for Smooth and Robust Natural Interaction. , 2018, , .		17
24	Learning Nonlinear Soft-Tissue Dynamics for Interactive Avatars. Proceedings of the ACM on Computer Graphics and Interactive Techniques, 2018, 1, 1-15.	1.6	19
25	Sparse GPU Voxelization of Yarn‐Level Cloth. Computer Graphics Forum, 2017, 36, 22-34.	3.0	8
26	Yarn-Level Cloth Simulation with Sliding Persistent Contacts. IEEE Transactions on Visualization and Computer Graphics, 2017, 23, 1152-1162.	4.4	39
27	Proxy-based haptic rendering for underactuated haptic devices. , 2017, , .		7
28	An Appearance Model for Textile Fibers. Computer Graphics Forum, 2017, 36, 35-45.	3.0	26
29	Optimization-Based Wearable Tactile Rendering. IEEE Transactions on Haptics, 2017, 10, 254-264.	2.7	28
30	DYVERSO: A Versatile Multi‐Phase Position‐Based Fluids Solution for VFX. Computer Graphics Forum, 2017, 36, 32-44.	3.0	7
31	Modeling Behavioral Experiment Interaction and Environmental Stimuli for a Synthetic C. elegans. Frontiers in Neuroinformatics, 2017, 11, 71.	2.5	22
32	Conformation constraints for efficient viscoelastic fluid simulation. ACM Transactions on Graphics, 2017, 36, 1-11.	7.2	18
33	Modeling and Estimation of Energy‐Based Hyperelastic Objects. Computer Graphics Forum, 2016, 35, 385-396.	3.0	14
34	High-resolution interaction with corotational coarsening models. ACM Transactions on Graphics, 2016, 35, 1-11.	7.2	14
35	Efficient nonlinear skin simulation for multi-finger tactile rendering. , 2016, , .		6
36	Design and fabrication of flexible rod meshes. ACM Transactions on Graphics, 2015, 34, 1-12.	7.2	81

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37	Aggregate Constraints for Virtual Manipulation with Soft Fingers. IEEE Transactions on Visualization and Computer Graphics, 2015, 21, 452-461.	4.4	35
38	Soft finger tactile rendering for wearable haptics. , 2015, , .		24
39	Characterization of nonlinear finger pad mechanics for tactile rendering. , 2015, , .		12
40	Efficient simulation of knitted cloth using persistent contacts. , 2015, , .		29
41	A parallel resampling method for interactive deformation of volumetric models. Computers and Graphics, 2015, 53, 147-155.	2.5	10
42	Simulating articulated subspace self-contact. ACM Transactions on Graphics, 2014, 33, 1-9.	7.2	39
43	Yarn-level simulation of woven cloth. ACM Transactions on Graphics, 2014, 33, 1-11.	7.2	79
44	A Survey on Position€Based Simulation Methods in Computer Graphics. Computer Graphics Forum, 2014, 33, 228-251.	3.0	135
45	Fast Collision Detection for Fracturing Rigid Bodies. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 30-41.	4.4	6
46	Interactive Deformation of Heterogeneous Volume Data. Lecture Notes in Computer Science, 2014, , 131-140.	1.3	5
47	On-Board Multi-GPU Molecular Dynamics. Lecture Notes in Computer Science, 2013, , 862-873.	1.3	2
48	Representations and Algorithms for Force-Feedback Display. Proceedings of the IEEE, 2013, 101, 2068-2080.	21.3	23
49	Strain limiting for soft finger contact simulation. , 2013, , .		24
50	Animating Wrinkles by Example on Non-Skinned Cloth. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 149-158.	4.4	47
51	Visuo-Haptic Mixed Reality with Unobstructed Tool-Hand Integration. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 159-172.	4.4	30
52	Modeling and estimation of internal friction in cloth. ACM Transactions on Graphics, 2013, 32, 1-10.	7.2	39
53	Continuous penalty forces. ACM Transactions on Graphics, 2012, 31, 1-9.	7.2	60
54	Data€Driven Estimation of Cloth Simulation Models. Computer Graphics Forum, 2012, 31, 519-528.	3.0	82

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55	Interactive simulation of a deformable hand for haptic rendering. , 2011, , .		32
56	Solid-Texture Synthesis: A Survey. IEEE Computer Graphics and Applications, 2010, 30, 74-89.	1.2	33
57	Haptic rendering of objects with rigid and deformable parts. Computers and Graphics, 2010, 34, 689-697.	2.5	16
58	Perceptually validated global/local deformations. Computer Animation and Virtual Worlds, 2010, 21, 245-254.	1.2	1
59	Design and fabrication of materials with desired deformation behavior. ACM Transactions on Graphics, 2010, 29, 1-10.	7.2	185
60	Star-contours for efficient hierarchical self-collision detection. ACM Transactions on Graphics, 2010, 29, 1-8.	7.2	28
61	Capture and modeling of non-linear heterogeneous soft tissue. ACM Transactions on Graphics, 2009, 28, 1-9.	7.2	100
62	Bounded normal trees for reduced deformations of triangulated surfaces. , 2009, , .		24
63	Controlling deformable material with dynamic morph targets. , 2009, , .		12
64	Splitting meshless deforming objects with explicit surface tracking. Graphical Models, 2009, 71, 209-220.	2.4	22
65	Implicit Contact Handling for Deformable Objects. Computer Graphics Forum, 2009, 28, 559-568.	3.0	98
66	Augmented touch without visual obtrusion. , 2009, , .		32
67	Haptic rendering of complex deformations through handle-space force linearization. , 2009, , .		19
68	Tight and efficient surface bounds in meshless animation. Computers and Graphics, 2008, 32, 235-245.	2.5	4
69	Virtual Reality Software and Technology. IEEE Computer Graphics and Applications, 2008, 28, 18-19.	1.2	3
70	Multi-scale capture of facial geometry and motion. ACM Transactions on Graphics, 2007, 26, 33.	7.2	116
71	Dynamic deformation textures. , 2007, , .		7
72	Transparent Rendering of Tool Contact with Compliant Environments. , 2007, , .		15

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73	Balanced Hierarchies for Collision Detection between Fracturing Objects. , 2007, , .		13
74	Accelerated Proximity Queries for Haptic Rendering of Deformable Models. , 2007, , .		2
75	Soft Articulated Characters with Fast Contact Handling. Computer Graphics Forum, 2007, 26, 243-253.	3.0	41
76	Texturing Internal Surfaces from a Few Cross Sections. Computer Graphics Forum, 2007, 26, 637-644.	3.0	16
77	Interactive Haptic Rendering of High-Resolution Deformable Objects. Lecture Notes in Computer Science, 2007, , 215-223.	1.3	14
78	A modular haptic rendering algorithm for stable and transparent 6-DOF manipulation. , 2006, 22, 751-762.		80
79	High Fidelity Haptic Rendering. Synthesis Lectures on Computer Graphics and Animation, 2006, 1, 1-112.	0.1	6
80	Sensation-preserving haptic rendering. IEEE Computer Graphics and Applications, 2005, 25, 8-11.	1.2	62
81	Haptic rendering of interaction between textured models. , 2004, , .		6
82	DiFi: Fast 3D Distance Field Computation Using Graphics Hardware. Computer Graphics Forum, 2004, 23, 557-566.	3.0	106
83	Six-Degree-of-Freedom Haptic Rendering Using Incremental and Localized Computations. Presence: Teleoperators and Virtual Environments, 2003, 12, 277-295.	0.6	72
84	Sensation preserving simplification for haptic rendering. ACM Transactions on Graphics, 2003, 22, 543-553.	7.2	38
85	Sensation preserving simplification for haptic rendering. , 2003, , .		24
86	ArtNova: touch-enabled 3D model design. , 0, , .		33
87	Six-degree-of-freedom haptic display using localized contact computations. , 0, , .		23
88	Haptic display of interaction between textured models. , 0, , .		30
89	Stable and Responsive Six-Degree-of-Freedom Haptic Manipulation Using Implicit Integration. , 0, , .		34