

Dinesh Manocha

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

405
papers

11,002
citations

50
h-index

86
g-index

433
ext. papers

13,690
ext. citations

3.4
avg, IF

6.62
L-index

#	Paper	IF	Citations
405	OBBTree 1996 ,		770
404	Reciprocal n-Body Collision Avoidance. <i>Springer Tracts in Advanced Robotics</i> , 2011 , 3-19	0.5	504
403	Reciprocal Velocity Obstacles for real-time multi-agent navigation 2008 ,		497
402	Fast computation of generalized Voronoi diagrams using graphics hardware 1999 ,		218
401	GPUSort 2006 ,		211
400	The Hybrid Reciprocal Velocity Obstacle. <i>IEEE Transactions on Robotics</i> , 2011 , 27, 696-706	6.5	192
399	Fast BVH Construction on GPUs. <i>Computer Graphics Forum</i> , 2009 , 28, 375-384	2.4	191
398	FCL: A general purpose library for collision and proximity queries 2012 ,		184
397	. <i>IEEE Transactions on Automation Science and Engineering</i> , 1994 , 10, 648-657		157
396	ClearPath 2009 ,		142
395	Directing crowd simulations using navigation fields. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2011 , 17, 244-54	4	121
394	TrafficPredict: Trajectory Prediction for Heterogeneous Traffic-Agents. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2019 , 33, 6120-6127	5	115
393	Visibility culling using hierarchical occlusion maps 1997 ,		113
392	Interactive navigation of multiple agents in crowded environments 2008 ,		108
391	Generalized velocity obstacles 2009 ,		95
390	Simulating heterogeneous crowd behaviors using personality trait theory 2011 ,		95
389	Reciprocal collision avoidance with acceleration-velocity obstacles 2011 ,		94

388	Interactive collision detection between deformable models using chromatic decomposition. <i>ACM Transactions on Graphics</i> , 2005 , 24, 991-999	7.6	91
387	Parameter estimation and comparative evaluation of crowd simulations. <i>Computer Graphics Forum</i> , 2014 , 33, 303-312	2.4	85
386	An efficient surface intersection algorithm based on lower-dimensional formulation. <i>ACM Transactions on Graphics</i> , 1997 , 16, 74-106	7.6	84
385	gProximity: Hierarchical GPU-based Operations for Collision and Distance Queries. <i>Computer Graphics Forum</i> , 2010 , 29, 419-428	2.4	80
384	A statistical similarity measure for aggregate crowd dynamics. <i>ACM Transactions on Graphics</i> , 2012 , 31, 1-11	7.6	76
383	Accurate Minkowski sum approximation of polyhedral models. <i>Graphical Models</i> , 2006 , 68, 343-355	0.9	76
382	DiFi: Fast 3D Distance Field Computation Using Graphics Hardware. <i>Computer Graphics Forum</i> , 2004 , 23, 557-566	2.4	74
381	MultiPolynomial Resultant Algorithms. <i>Journal of Symbolic Computation</i> , 1993 , 15, 99-122	0.8	73
380	Real-time navigation of independent agents using adaptive roadmaps 2007 ,		71
379	LU-GPU: Efficient Algorithms for Solving Dense Linear Systems on Graphics Hardware		70
378	Fast distance queries with rectangular swept sphere volumes		70
377	Real-time path planning in dynamic virtual environments using multiagent navigation graphs. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2008 , 14, 526-38	4	69
376	TraPHic: Trajectory Prediction in Dense and Heterogeneous Traffic Using Weighted Interactions 2019 ,		69
375	. <i>IEEE Computer Graphics and Applications</i> , 1994 , 14, 46-55	1.7	68
374	Fast and approximate stream mining of quantiles and frequencies using graphics processors 2005 ,		67
373	Fast GPU-based locality sensitive hashing for k-nearest neighbor computation 2011 ,		66
372	Memory---A memory model for scientific algorithms on graphics processors 2006 ,		66
371	Incremental algorithms for collision detection between polygonal models. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 1997 , 3, 51-64	4	64

370	Exact computation of the medial axis of a polyhedron. <i>Computer Aided Geometric Design</i> , 2004 , 21, 65-98.	1.2	64
369	An efficient GPU-based time domain solver for the acoustic wave equation. <i>Applied Acoustics</i> , 2012 , 73, 83-94	3.1	63
368	Fast collision detection for deformable models using representative-triangles 2008 ,		62
367	MMR 1999 ,		61
366	. <i>IEEE Transactions on Robotics</i> , 2018 , 34, 586-601	6.5	58
365	Collision-free and smooth trajectory computation in cluttered environments. <i>International Journal of Robotics Research</i> , 2012 , 31, 1155-1175	5.7	58
364	RT-DEFORM: Interactive Ray Tracing of Dynamic Scenes using BVHs 2006 ,		56
363	Interactive surface decomposition for polyhedral morphing. <i>Visual Computer</i> , 1999 , 15, 453-470	2.3	56
362	ICCD: interactive continuous collision detection between deformable models using connectivity-based culling. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2009 , 15, 544-57	4	54
361	Interactive 3D distance field computation using linear factorization 2006 ,		53
360	Six-Degree-of-Freedom Haptic Rendering Using Incremental and Localized Computations. <i>Presence: Teleoperators and Virtual Environments</i> , 2003 , 12, 277-295	2.9	51
359	Algorithm for implicitizing rational parametric surfaces. <i>Computer Aided Geometric Design</i> , 1992 , 9, 25-50.	1.2	51
358	Continuous penalty forces. <i>ACM Transactions on Graphics</i> , 2012 , 31, 1-9	7.6	50
357	Generalized penetration depth computation. <i>CAD Computer Aided Design</i> , 2007 , 39, 625-638	2.9	50
356	Fast Continuous Collision Detection for Articulated Models. <i>Journal of Computing and Information Science in Engineering</i> , 2005 , 5, 126-137	2.4	50
355	PORCA: Modeling and Planning for Autonomous Driving Among Many Pedestrians. <i>IEEE Robotics and Automation Letters</i> , 2018 , 3, 3418-3425	4.2	50
354	Smooth and collision-free navigation for multiple robots under differential-drive constraints 2010 ,		49
353	Collision-streams 2011 ,		49

352	AD-Frustum: adaptive frustum tracing for interactive sound propagation. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2008 , 14, 1707-14	4	49
351	Virtualized Traffic: reconstructing traffic flows from discrete spatiotemporal data. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2011 , 17, 26-37	4	48
350	BRVO: Predicting pedestrian trajectories using velocity-space reasoning. <i>International Journal of Robotics Research</i> , 2015 , 34, 201-217	5.7	47
349	High-order diffraction and diffuse reflections for interactive sound propagation in large environments. <i>ACM Transactions on Graphics</i> , 2014 , 33, 1-12	7.6	45
348	Interactive simulation of dynamic crowd behaviors using general adaptation syndrome theory 2012 ,		45
347	Cache-oblivious mesh layouts. <i>ACM Transactions on Graphics</i> , 2005 , 24, 886-893	7.6	45
346	Algorithmic issues in modeling motion. <i>ACM Computing Surveys</i> , 2002 , 34, 550-572	13.4	45
345	Fast and Exact Continuous Collision Detection with Bernstein Sign Classification. <i>ACM Transactions on Graphics</i> , 2014 , 33,	7.6	43
344	GPU-based parallel collision detection for fast motion planning. <i>International Journal of Robotics Research</i> , 2012 , 31, 187-200	5.7	43
343	Accelerated occlusion culling using shadow frusta 1997 ,		43
342	Fast continuous collision detection using deforming non-penetration filters 2010 ,		42
341	Least-effort trajectories lead to emergent crowd behaviors. <i>Physical Review E</i> , 2012 , 85, 016110	2.4	42
340	MCCD: Multi-core collision detection between deformable models using front-based decomposition. <i>Graphical Models</i> , 2010 , 72, 7-23	0.9	41
339	Fast proximity computation among deformable models using discrete Voronoi diagrams. <i>ACM Transactions on Graphics</i> , 2006 , 25, 1144-1153	7.6	41
338	Detecting cusps and inflection points in curves. <i>Computer Aided Geometric Design</i> , 1992 , 9, 1-24	1.2	41
337	AADS: Augmented autonomous driving simulation using data-driven algorithms. <i>Science Robotics</i> , 2019 , 4,	18.6	40
336	VolCCD. <i>ACM Transactions on Graphics</i> , 2011 , 30, 1-15	7.6	40
335	HLODs for faster display of large static and dynamic environments 2001 ,		40

334	Accurate computation of the medial axis of a polyhedron 1999 ,		40
333	LQG-obstacles: Feedback control with collision avoidance for mobile robots with motion and sensing uncertainty 2012 ,		38
332	Wave-based sound propagation in large open scenes using an equivalent source formulation. <i>ACM Transactions on Graphics</i> , 2013 , 32, 1-13	7.6	38
331	Topology preserving surface extraction using adaptive subdivision. <i>Eurographics Symposium on Geometry Processing</i> , 2004 ,		38
330	Efficient rendering of trimmed nurbs surfaces. <i>CAD Computer Aided Design</i> , 1995 , 27, 509-521	2.9	38
329	Real-time optimization-based planning in dynamic environments using GPUs 2013 ,		37
328	Independent navigation of multiple mobile robots with hybrid reciprocal velocity obstacles 2009 ,		37
327	R-LODs: fast LOD-based ray tracing of massive models. <i>Visual Computer</i> , 2006 , 22, 772-784	2.3	37
326	Memory-Scalable GPU Spatial Hierarchy Construction. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2011 , 17, 466-74	4	36
325	Real-time Path Planning for Virtual Agents in Dynamic Environments 2007 ,		36
324	A Voronoi-based hybrid motion planner		36
323	Algorithms for intersecting parametric and algebraic curves I. <i>ACM Transactions on Graphics</i> , 1994 , 13, 73-100	7.6	36
322	Cache-Efficient Layouts of Bounding Volume Hierarchies. <i>Computer Graphics Forum</i> , 2006 , 25, 507-516	2.4	35
321	Sounding liquids. <i>ACM Transactions on Graphics</i> , 2010 , 29, 1-13	7.6	34
320	RESound 2009 ,		34
319	Homotopy-preserving medial axis simplification 2005 ,		34
318	Algorithms for Intersecting Parametric and Algebraic Curves II: Multiple Intersections. <i>Graphical Models</i> , 1995 , 57, 81-100		34
317	Implicit representation of rational parametric surfaces. <i>Journal of Symbolic Computation</i> , 1992 , 13, 485-518		34

316	Efficient Computation of A Simplified Medial Axis. <i>Journal of Computing and Information Science in Engineering</i> , 2003 , 3, 274-284	2.4	33
315	GPU-based offset surface computation using point samples. <i>CAD Computer Aided Design</i> , 2013 , 45, 321-330		32
314	Interactive sound rendering in complex and dynamic scenes using frustum tracing. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2007 , 13, 1672-9	4	32
313	Incremental penetration depth estimation between convex polytopes using dual-space expansion. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2004 , 10, 152-63	4	32
312	Interactive motion planning using hardware-accelerated computation of generalized Voronoi diagrams		32
311	Six degree-of-freedom haptic display of polygonal models		32
310	Continuous model synthesis. <i>ACM Transactions on Graphics</i> , 2008 , 27, 1-7	7.6	31
309	Efficient and exact manipulation of algebraic points and curves. <i>CAD Computer Aided Design</i> , 2000 , 32, 649-662	2.9	31
308	Fast probabilistic collision checking for sampling-based motion planning using locality-sensitive hashing. <i>International Journal of Robotics Research</i> , 2016 , 35, 1477-1496	5.7	30
307	WAVE: Interactive Wave-based Sound Propagation for Virtual Environments. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2015 , 21, 434-42	4	30
306	General-purpose computations using graphics processors. <i>Computer</i> , 2005 , 38, 85-88	1.6	30
305	Fast interference detection between geometric models. <i>Visual Computer</i> , 1995 , 11, 542-561	2.3	30
304	Forecasting Trajectory and Behavior of Road-Agents Using Spectral Clustering in Graph-LSTMs. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 4882-4890	4.2	29
303	SocioSense: Robot navigation amongst pedestrians with social and psychological constraints 2017 ,		29
302	RayCore. <i>ACM Transactions on Graphics</i> , 2014 , 33, 1-15	7.6	29
301	Wave-ray coupling for interactive sound propagation in large complex scenes. <i>ACM Transactions on Graphics</i> , 2013 , 32, 1-11	7.6	29
300	Rapid and Accurate Contact Determination between Spline Models using ShellTrees. <i>Computer Graphics Forum</i> , 1998 , 17, 315-326	2.4	29
299	Quick-VDR: out-of-core view-dependent rendering of gigantic models. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2005 , 11, 369-82	4	29

298	Fast swept volume approximation of complex polyhedral models 2003 ,		29
297	Guided Multiview Ray Tracing for Fast Auralization. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012 , 18, 1797-810	4	28
296	Multi-robot coordination using generalized social potential fields 2009 ,		28
295	ESOLID $\bar{\text{E}}$ system for exact boundary evaluation. <i>CAD Computer Aided Design</i> , 2004 , 36, 175-193	2.9	28
294	Fast swept volume approximation of complex polyhedral models. <i>CAD Computer Aided Design</i> , 2004 , 36, 1013-1027	2.9	28
293	M3ER: Multiplicative Multimodal Emotion Recognition using Facial, Textual, and Speech Cues. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2020 , 34, 1359-1367	5	28
292	Right of way. <i>Visual Computer</i> , 2013 , 29, 1277-1292	2.3	27
291	Model Synthesis: A General Procedural Modeling Algorithm. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2011 , 17, 715-28	4	27
290	Interactive navigation of heterogeneous agents using adaptive roadmaps. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2009 , 15, 34-48	4	27
289	GPU accelerated convex hull computation. <i>Computers and Graphics</i> , 2012 , 36, 498-506	1.8	26
288	Interactive continuous collision detection between deformable models using connectivity-based culling 2008 ,		26
287	Logarithmic perspective shadow maps. <i>ACM Transactions on Graphics</i> , 2008 , 27, 1-32	7.6	26
286	Cache-efficient numerical algorithms using graphics hardware. <i>Parallel Computing</i> , 2007 , 33, 663-684	1	26
285	Interactive display of large NURBS models. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 1996 , 2, 323-336	4	26
284	CAMA: Contact-Aware Matrix Assembly with Unified Collision Handling for GPU-based Cloth Simulation. <i>Computer Graphics Forum</i> , 2016 , 35, 511-521	2.4	26
283	GLMP- realtime pedestrian path prediction using global and local movement patterns 2016 ,		26
282	Source and listener directivity for interactive wave-based sound propagation. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2014 , 20, 495-503	4	25
281	Velocity-based modeling of physical interactions in multi-agent simulations 2013 ,		25

280	Reactive deformation roadmaps: motion planning of multiple robots in dynamic environments 2007,		25
279	Interactive visibility culling in complex environments using occlusion-switches 2003,		25
278	Path Planning among Movable Obstacles: A Probabilistically Complete Approach. <i>Springer Tracts in Advanced Robotics</i> , 2009 , 599-614	0.5	25
277	EmotiCon: Context-Aware Multimodal Emotion Recognition Using Frege's Principle 2020,		25
276	3-D Deformable Object Manipulation Using Deep Neural Networks. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 4255-4261	4.2	24
275	A GPU-based Streaming Algorithm for High-Resolution Cloth Simulation. <i>Computer Graphics Forum</i> , 2013 , 32, 21-30	2.4	24
274	Virtual Tawaf: A case study in simulating the behavior of dense, heterogeneous crowds 2011,		24
273	Fast and reliable collision culling using graphics hardware 2004,		24
272	Quick-VDR: interactive view-dependent rendering of massive models		24
271	Getting Robots Unfrozen and Unlost in Dense Pedestrian Crowds. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 1178-1185	4.2	23
270	ReduceM: Interactive and Memory Efficient Ray Tracing of Large Models. <i>Computer Graphics Forum</i> , 2008 , 27, 1313-1321	2.4	23
269	A NEW APPROACH FOR SURFACE INTERSECTION. <i>International Journal of Computational Geometry and Applications</i> , 1991 , 01, 491-516	0.3	23
268	PRVO: Probabilistic Reciprocal Velocity Obstacle for multi robot navigation under uncertainty 2017 ,		22
267	AutonoVi: Autonomous vehicle planning with dynamic maneuvers and traffic constraints 2017,		22
266	Multi-core collision detection between deformable models 2009,		22
265	MAPC 1999,		22
264	I-Planner: Intention-aware motion planning using learning-based human motion prediction. <i>International Journal of Robotics Research</i> , 2019 , 38, 23-39	5.7	22
263	Efficient Configuration Space Construction and Optimization for Motion Planning. <i>Engineering</i> , 2015 , 1, 046-057	9.7	21

262	Bi-level Locality Sensitive Hashing for k-Nearest Neighbor Computation 2012,		21
261	Improved Dynamic Cardiac Phantom Based on 4D NURBS and Tagged MRI. <i>IEEE Transactions on Nuclear Science</i> , 2009 , 56, 2728-2738	1.7	21
260	Efficient and accurate B-rep generation of low degree sculptured solids using exact arithmetic: B-representations. <i>Computer Aided Geometric Design</i> , 1999 , 16, 841-859	1.2	19
259	Efficient and accurate B-rep generation of low degree sculptured solids using exact arithmetic: B-computation. <i>Computer Aided Geometric Design</i> , 1999 , 16, 861-882	1.2	19
258	Partitioning and Handling Massive Models for Interactive Collision Detection. <i>Computer Graphics Forum</i> , 1999 , 18, 319-330	2.4	19
257	Ray tracing dynamic scenes using selective restructuring 2007,		19
256	Generating pedestrian trajectories consistent with the fundamental diagram based on physiological and psychological factors. <i>PLoS ONE</i> , 2015 , 10, e0117856	3.7	19
255	FastV: From-point Visibility Culling on Complex Models. <i>Computer Graphics Forum</i> , 2009 , 28, 1237-1246	2.4	18
254	Interactive sound propagation using compact acoustic transfer operators. <i>ACM Transactions on Graphics</i> , 2012 , 31, 1-12	7.6	18
253	Real-time path planning for virtual agents in dynamic environments 2008,		18
252	Real-time reciprocal collision avoidance with elliptical agents 2016,		18
251	. <i>IEEE Transactions on Multimedia</i> , 2016 , 18, 2398-2406	6.6	18
250	Interactive sound propagation with bidirectional path tracing. <i>ACM Transactions on Graphics</i> , 2016 , 35, 1-11	7.6	17
249	Algebraic pruning: a fast technique for curve and surface intersection. <i>Computer Aided Geometric Design</i> , 1997 , 14, 823-845	1.2	17
248	Feature-based surface decomposition for correspondence and morphing between polyhedra		17
247	Fast continuous collision detection among deformable models using graphics processors. <i>Computers and Graphics</i> , 2007 , 31, 5-14	1.8	17
246	Feature-sensitive subdivision and isosurface reconstruction		17
245	BOOLE: A BOUNDARY EVALUATION SYSTEM FOR BOOLEAN COMBINATIONS OF SCULPTURED SOLIDS. <i>International Journal of Computational Geometry and Applications</i> , 2001 , 11, 105-144	0.3	17

244	Solving algebraic systems using matrix computations. <i>SIGSAM Bulletin: A Quarterly Publication of the Special Interest Group on Symbolic & Algebraic Manipulation</i> , 1996 , 30, 4-21		17
243	Generating Grasp Poses for a High-DOF Gripper Using Neural Networks 2019 ,		17
242	Diffraction Kernels for Interactive Sound Propagation in Dynamic Environments. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2018 , 24, 1613-1622	4	16
241	Online parameter learning for data-driven crowd simulation and content generation. <i>Computers and Graphics</i> , 2016 , 55, 68-79	1.8	16
240	Real-time footstep planning for humanoid robots among 3D obstacles using a hybrid bounding box 2012 ,		16
239	D-Plan: Efficient Collision-Free Path Computation for Part Removal and Disassembly. <i>Computer-Aided Design and Applications</i> , 2008 , 5, 774-786	1.4	16
238	Fast collision detection between massive models using dynamic simplification. <i>Eurographics Symposium on Geometry Processing</i> , 2004 ,		16
237	Out-of-core rendering of massive geometric environments		16
236	ACSEE: Antagonistic Crowd Simulation Model with Emotional Contagion and Evolutionary Game Theory. <i>IEEE Transactions on Affective Computing</i> , 2019 , 1-1	5.7	16
235	Direct-to-indirect acoustic radiance transfer. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012 , 18, 261-9	4	15
234	TightCCD: Efficient and Robust Continuous Collision Detection using Tight Error Bounds. <i>Computer Graphics Forum</i> , 2015 , 34, 289-298	2.4	15
233	Real-Time Massive Model Rendering. <i>Synthesis Lectures on Computer Graphics and Animation</i> , 2008 , 2, 1-122		15
232	An efficient retraction-based RRT planner 2008 ,		15
231	C-DIST 2007 ,		15
230	Fast and reliable collision culling using graphics hardware. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2006 , 12, 143-54	4	15
229	Constraint-Based Motion Planning of Deformable Robots		15
228	DEEP: dual-space expansion for estimating penetration depth between convex polytopes		15
227	STEP: Spatial Temporal Graph Convolutional Networks for Emotion Perception from Gaits. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2020 , 34, 1342-1350	5	15

226	Heter-Sim: Heterogeneous Multi-Agent Systems Simulation by Interactive Data-Driven Optimization. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2021 , 27, 1953-1966	4	15
225	LSwarm: Efficient Collision Avoidance for Large Swarms With Coverage Constraints in Complex Urban Scenes. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 3940-3947	4.2	14
224	DGaze: CNN-Based Gaze Prediction in Dynamic Scenes. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2020 , 26, 1902-1911	4	14
223	F2FCrowds: Planning Agent Movements to Enable Face-to-Face Interactions. <i>Presence: Teleoperators and Virtual Environments</i> , 2017 , 26, 228-246	2.9	14
222	On Computing Reliable Optimal Grasping Forces. <i>IEEE Transactions on Robotics</i> , 2012 , 28, 619-633	6.5	14
221	Efficient Motion Planning of Highly Articulated Chains using Physics-based Sampling. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007 ,		14
220	Simplifying complex environments using incremental textured depth meshes. <i>ACM Transactions on Graphics</i> , 2003 , 22, 678-688	7.6	14
219	Quick-VDR 2004 ,		14
218	Cache-oblivious mesh layouts 2005 ,		14
217	Efficient Solver for Spacetime Control of Smoke. <i>ACM Transactions on Graphics</i> , 2017 , 36, 1	7.6	14
216	SGaze: A Data-Driven Eye-Head Coordination Model for Realtime Gaze Prediction. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2019 , 25, 2002-2010	4	14
215	Motion recognition of self and others on realistic 3D avatars. <i>Computer Animation and Virtual Worlds</i> , 2017 , 28, e1762	0.9	13
214	DCAD: Decentralized Collision Avoidance With Dynamics Constraints for Agile Quadrotor Swarms. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 1191-1198	4.2	13
213	Fast and Bounded Probabilistic Collision Detection for High-DOF Trajectory Planning in Dynamic Environments. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 980-991	4.9	13
212	P-HRTF: Efficient personalized HRTF computation for high-fidelity spatial sound 2014 ,		13
211	Way portals 2012 ,		13
210	Adjacency-based culling for continuous collision detection. <i>Visual Computer</i> , 2008 , 24, 545-553	2.3	13
209	Interactive shadow generation in complex environments. <i>ACM Transactions on Graphics</i> , 2003 , 22, 501-510	7.6	13

208	Efficient relational database management using graphics processors 2005 ,		13
207	COVID surveillance robot: Monitoring social distancing constraints in indoor scenarios. <i>PLoS ONE</i> , 2021 , 16, e0259713	3.7	13
206	Proxemic group behaviors using reciprocal multi-agent navigation 2016 ,		13
205	A parallel time-domain wave simulator based on rectangular decomposition for distributed memory architectures. <i>Applied Acoustics</i> , 2015 , 97, 104-114	3.1	12
204	Efficient Boundary Extraction of BSP Solids Based on Clipping Operations. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2013 , 19, 16-29	4	12
203	Efficient Solver for Spacetime Control of Smoke. <i>ACM Transactions on Graphics</i> , 2017 , 36, 1-13	7.6	12
202	Efficient finite-edge diffraction using conservative from-region visibility. <i>Applied Acoustics</i> , 2012 , 73, 218-233	3.1	12
201	A walking pattern generator for biped robots on uneven terrains 2010 ,		12
200	Motion planning of human-like robots using constrained coordination 2009 ,		12
199	Efficient Cell Labelling and Path Non-existence Computation using C-obstacle Query. <i>International Journal of Robotics Research</i> , 2008 , 27, 1246-1257	5.7	12
198	Ray-Strips: A Compact Mesh Representation for Interactive Ray Tracing 2007 ,		12
197	Interactive and continuous collision detection for avatars in virtual environments		12
196	Hierarchical back-face computation. <i>Computers and Graphics</i> , 1999 , 23, 681-692	1.8	12
195	Efficient Algorithms for MultiPolynomial Resultant. <i>Computer Journal</i> , 1993 , 36, 485-496	1.3	12
194	DenseCAvoid: Real-time Navigation in Dense Crowds using Anticipatory Behaviors 2020 ,		12
193	Simulating Flying Insects Using Dynamics and Data-Driven Noise Modeling to Generate Diverse Collective Behaviors. <i>PLoS ONE</i> , 2016 , 11, e0155698	3.7	12
192	Cloth Manipulation Using Random-Forest-Based Imitation Learning. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 2086-2093	4.2	11
191	Acoustic pulse propagation in an urban environment using a three-dimensional numerical simulation. <i>Journal of the Acoustical Society of America</i> , 2014 , 135, 3231-42	2.2	11

190	Navigating multiple simple-airplanes in 3D workspace 2010 ,		11
189	Six-degree-of-freedom haptic display using localized contact computations		11
188	RobustTP: End-to-End Trajectory Prediction for Heterogeneous Road-Agents in Dense Traffic with Noisy Sensor Inputs 2019 ,		11
187	GPU-Based Parallel Collision Detection for Real-Time Motion Planning. <i>Springer Tracts in Advanced Robotics</i> , 2010 , 211-228	0.5	11
186	An autonomous excavator system for material loading tasks. <i>Science Robotics</i> , 2021 , 6,	18.6	11
185	Robust individual and holistic features for crowd scene classification. <i>Pattern Recognition</i> , 2016 , 58, 110-120	1.7	11
184	ACMICS: an agent communication model for interacting crowd simulation. <i>Autonomous Agents and Multi-Agent Systems</i> , 2017 , 31, 1403-1423	2	10
183	Outdoor sound propagation with analytic ray curve tracer and Gaussian beam. <i>Journal of the Acoustical Society of America</i> , 2017 , 141, 2289	2.2	10
182	3D Reconstruction in the presence of glasses by acoustic and stereo fusion 2015 ,		10
181	Real-time collision detection and distance computation on point cloud sensor data 2013 ,		10
180	Efficient simplex computation for fixture layout design. <i>CAD Computer Aided Design</i> , 2011 , 43, 1307-1318	1.9	10
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