Georges Dumont

List of Publications by Year
in descending order

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69	651	567247 15	677123 22
papers	citations	h-index	g-index

75	75	75	529
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A penalty method for constrained multibody kinematics optimisation using a Levenbergâ€“Marquardt algorithm. Computer Methods in Biomechanics and Biomedical Engineering, 2023, 26, 864-875.	1.6	3
2	An Automatic and Simplified Approach to Muscle Path Modeling. Journal of Biomechanical Engineering, 2022, 144, .	1.3	1
3	Biomechanical Fidelity of Simulated Pick-and-Place Tasks: Impact of Visual and Haptic Renderings. IEEE Transactions on Haptics, 2021, 14, 692-698.	2.7	2
4	A Neural Networks Approach to Determine Factors Associated With Self-Reported Discomfort in Picking Tasks. Human Factors, 2021, , 001872082110476.	3.5	3
5	Dimension Reduction of Anthropometric Measurements with Support Vector Machine for Regression: Application to a French Military Personnel Database. Advances in Intelligent Systems and Computing, 2021, , 301-308.	0.6	0
6	Motion-based prediction of external forces and moments and back loading during manual material handling tasks. Applied Ergonomics, 2020, 82, 102935.	3.1	18
7	Motion-Based Prediction of Hands and Feet Contact Efforts During Asymmetric Handling Tasks. IEEE Transactions on Biomedical Engineering, 2020, 67, 344-352.	4.2	11
8	Accuracy and kinematics consistency of marker-based scaling approaches on a lower limb model: a comparative study with imagery data. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 114-125.	1.6	17
9	Posture Assessment and Subjective Scale Agreement in Picking Tasks with Low Masses. Advances in Intelligent Systems and Computing, 2020, , 32-38.	0.6	1
10	Using Torque-Angle and Torqueâ€“Velocity Models to Characterize Elbow Mechanical Function: Modeling and Applied Aspects. Journal of Biomechanical Engineering, 2019, 141, .	1.3	6
11	MusIC method enhancement by a sensitivity study of its performance: Application to a lower limbs musculoskeletal model. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 159-168.	1.6	0
12	Morphology independent motion retrieval and control. The International Journal of Virtual Reality, 2019, 8, 57-65.	2.2	2
13	CusToM: a Matlab toolbox for musculoskeletal simulation. Journal of Open Source Software, 2019, 4, 927.	4.6	28
14	The MusIC method: a fast and quasi-optimal solution to the muscle forces estimation problem. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 149-160.	1.6	2
15	Muscleâ€Based Control for Character Animation. Computer Graphics Forum, 2017, 36, 122-147.	3.0	10
16	VR-based operating modes and metaphors for collaborative ergonomic design of industrial workstations. Journal on Multimodal User Interfaces, 2017, 11, 97-111.	2.9	13
17	Uncertainty propagation in multibody human model dynamics. Multibody System Dynamics, 2017, 40, 177-192.	2.7	14
18	Inverse dynamics based on occlusion-resistant Kinect data: Is it usable for ergonomics?. International Journal of Industrial Ergonomics, 2017, 61, 71-80.	2.6	21

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19	A synergyâ€based control solution for overactuated characters: Application to throwing. Computer Animation and Virtual Worlds, 2017, 28, e1743.	1.2	4
20	Which mathematical model best fit the maximal isometric torque-angle relationship of the elbow?. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, S101-S102.	1.6	1
21	Low-Dimensional Motor Control Representations in Throwing Motions. Applied Bionics and Biomechanics, 2017, 2017, 1-19.	1.1	2
22	Model Based Compensation for Low Mass Objects Haptic Manipulation in Virtual Environments. Lecture Notes in Computer Science, 2017, , 87-101.	1.3	1
23	Digital and Handcrafting Processes Applied to Sound-Studies of Archaeological Bone Flutes. Lecture Notes in Computer Science, 2016, , 184-195.	1.3	1
24	Motion control via muscle synergies. , 2015, , .		3
25	Shoulder Kinematics and Spatial Pattern of Trapezius Electromyographic Activity in Real and Virtual Environments. PLoS ONE, 2015, 10, e0116211.	2.5	19
26	Identifying representative muscle synergies in overhead football throws. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1918-1919.	1.6	8
27	Dealing with modularity of multibody models. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 2008-2009.	1.6	6
28	A comparative study of 3 body segment inertial parameters scaling rules. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 2010-2011.	1.6	3
29	Collaborative virtual environments for ergonomics: embedding the design engineer role in the loop. , 2014, , .		2
30	Improving awareness for 3D virtual collaboration by embedding the features of usersâ€™ physical environments and by augmenting interaction tools with cognitive feedback cues. Journal on Multimodal User Interfaces, 2014, 8, 187-197.	2.9	31
31	Designing and evaluating a workstation in real and virtual environment: toward virtual reality based ergonomic design sessions. Journal on Multimodal User Interfaces, 2014, 8, 199-208.	2.9	42
32	Strengths and limitations of a musculoskeletal model for an analysis of simulated meat cutting tasks. Applied Ergonomics, 2014, 45, 592-600.	3.1	33
33	Fast Collision Detection for Fracturing Rigid Bodies. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 30-41.	4.4	6
34	Assessing the Ability of a VR-Based Assembly Task Simulation to Evaluate PhysicalRisk Factors. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 664-674.	4.4	29
35	A bio-inspired limb controller for avatar animation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 174-175.	1.6	3
36	Real-Time Simulation of Brittle Fracture Using Modal Analysis. IEEE Transactions on Visualization and Computer Graphics, 2013, 19, 201-209.	4.4	32

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37	Sharing and bridging information in a collaborative virtual environment: Application to ergonomics. , 2013, , .		5
38	Interactive assembly simulation with haptic feedback. Assembly Automation, 2013, 33, 214-220.	1.7	20
39	Cutting Force and EMG Recordings for Ergonomics Assessment of Meat Cutting Tasks: Influence of the Workbench Height and the Cutting Direction on Muscle Activation Levels. , 2012, , .		5
40	Embedding the features of the users' physical environments to improve the feeling of presence in collaborative Virtual Environments. , 2012, , .		5
41	Designing and evaluating a workstation in real and virtual environment: From digital mock-up to realization. , 2012, , .		5
42	Exampleâ€Based Fractured Appearance. Computer Graphics Forum, 2012, 31, 1547-1556.	3.0	23
43	Haptic manipulation of deformable CAD parts with a two-stage method. International Journal on Interactive Design and Manufacturing, 2011, 5, 255-270.	2.2	7
44	A Conceptual Framework to Support Natural Interaction for Virtual Assembly Tasks. , 2011, , .		5
45	Meat Cutting Tasks Analysis Using 3D Instrumented Knife and Motion Capture. IFMBE Proceedings, 2011, , 144-147.	0.3	4
46	Interactive Two-Stage Rendering Technique of Deformable Part Through Haptic Interface. , 2011, , .		2
47	Interactive simulation of CAD models assemblies using virtual constraint guidance. International Journal on Interactive Design and Manufacturing, 2010, 4, 95-102.	2.2	44
48	Haptic Assembly of CAD Models Using Virtual Constraint Guidance. , 2010, , .		8
49	From motion capture to muscle forces in the human elbow aimed at improving the ergonomics of workstations. Virtual and Physical Prototyping, 2010, 5, 113-122.	10.4	12
50	A New Coupling Scheme for Haptic Rendering of Rigid Bodies Interactions Based on a Haptic Sub-world Using a Contact Graph. Lecture Notes in Computer Science, 2010, , 51-56.	1.3	3
51	Evaluation of Physical Simulation Libraries for Haptic Rendering of Contacts Between Rigid Bodies. , 2010, , .		8
52	Inverse dynamics method using optimization techniques for the estimation of muscles forces involved in the elbow motion. International Journal on Interactive Design and Manufacturing, 2009, 3, 227-236.	2.2	22
53	Motion Analysis of the Arm Based on Functional Anatomy. Lecture Notes in Computer Science, 2009, , 137-149.	1.3	2
54	Interactions haptiques au sein de simulations dynamiques Traitement dynamique des contacts et des chocs entre objets rigides. Techniques Et Sciences Informatiques, 2009, 28, 953-981.	0.0	0

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55	Interactive Animation of Virtual Characters: Application to Virtual Kung-Fu Fighting. , 2008, , .		8
56	Haptic simulations based on non-smooth dynamics for rigid-bodies. , 2008, , .		4
57	Dynamics-based analysis and synthesis of human locomotion. Visual Computer, 2007, 23, 513-522.	3.5	7
58	Morphological and stance interpolations in database for simulating bipedalism of virtual humans. Visual Computer, 2006, 22, 4-13.	3.5	9
59	Validating retargeted and interpolated locomotions by dynamics-based analysis. , 2006, , .		1
60	A Simulator for Helping in Design of a New Active Catheter Dedicated to Coloscopy. , 2005, , .		0
61	Coloscopy simulation: towards endoscopes improvement. Computer Methods in Biomechanics and Biomedical Engineering, 2005, 8, 251-257.	1.6	4
62	Finite element simulation for design optimisation of shape memory alloy spring actuators. Engineering Computations, 2005, 22, 835-848.	1.4	26
63	A simulator for helping in design of a new active catheter dedicated to coloscopy. International Journal of Simulation Modelling, 2005, 4, 129-141.	1.3	0
64	A Dynamical Training and Design Simulator for Active Catheters. International Journal of Advanced Robotic Systems, 2004, 1, 28.	2.1	3
65	Evolutionary Optimization of Mechanical and Control Design Application to Active Endoscopes. , 2002, , 317-330.		2
66	An active tubular polyarticulated micro-system for flexible endoscope. Lecture Notes in Control and Information Sciences, 2001, , 179-188.	1.0	18
67	The Active Set Algorithm for Solving Frictionless Unilateral Contact Problems. , 1995, , 263-266.		1
68	Dynamics and unification of animation control. Visual Computer, 1989, 5, 22-31.	3.5	3
69	Dual Graph of a Mesh Partition for Interactive Analysis of Huge Digital Mockups. , 0, , .		0