

Sergi Bermúdez i Badia

List of Publications by Year in descending order

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Version: 2024-02-01

97
papers

2,448
citations

279798

23
h-index

254184

43
g-index

102
all docs

102
docs citations

102
times ranked

2442
citing authors

#	ARTICLE	IF	CITATIONS
1	Neurorehabilitation using the virtual reality based Rehabilitation Gaming System: methodology, design, psychometrics, usability and validation. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2010, 7, 48.	4.6	265
2	Virtual reality based rehabilitation speeds up functional recovery of the upper extremities after stroke: A randomized controlled pilot study in the acute phase of stroke using the Rehabilitation Gaming System. <i>Restorative Neurology and Neuroscience</i> , 2011, 29, 287-298.	0.7	201
3	Benefits of virtual reality based cognitive rehabilitation through simulated activities of daily living: a randomized controlled trial with stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016, 13, 96.	4.6	193
4	The Combined Impact of Virtual Reality Neurorehabilitation and Its Interfaces on Upper Extremity Functional Recovery in Patients With Chronic Stroke. <i>Stroke</i> , 2012, 43, 2720-2728.	2.0	149
5	An artificial moth: Chemical source localization using a robot based neuronal model of moth optomotor anemotactic search. <i>Autonomous Robots</i> , 2006, 20, 197-213.	4.8	110
6	Efficacy and Brain Imaging Correlates of an Immersive Motor Imagery BCI-Driven VR System for Upper Limb Motor Rehabilitation: A Clinical Case Report. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 244.	2.0	99
7	Using a Hybrid Brain Computer Interface and Virtual Reality System to Monitor and Promote Cortical Reorganization through Motor Activity and Motor Imagery Training. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2013, 21, 174-181.	4.9	90
8	Motor priming in virtual reality can augment motor-imagery training efficacy in restorative brain-computer interaction: a within-subject analysis. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016, 13, 69.	4.6	88
9	A high-throughput behavioral paradigm for <i>Drosophila</i> olfaction - The Flywalk. <i>Scientific Reports</i> , 2012, 2, 361.	3.3	78
10	Combined Cognitive-Motor Rehabilitation in Virtual Reality Improves Motor Outcomes in Chronic Stroke – A Pilot Study. <i>Frontiers in Psychology</i> , 2018, 9, 854.	2.1	63
11	A functional magnetic resonance imaging study of visuomotor processing in a virtual reality-based paradigm: Rehabilitation Gaming System. <i>European Journal of Neuroscience</i> , 2013, 37, 1441-1447.	2.6	61
12	A comparison of two personalization and adaptive cognitive rehabilitation approaches: a randomized controlled trial with chronic stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 78.	4.6	51
13	Correlates of health-related quality of life in young-old and old-old community-dwelling older adults. <i>Quality of Life Research</i> , 2017, 26, 1561-1569.	3.1	47
14	A fly-locust based neuronal control system applied to an unmanned aerial vehicle: the invertebrate neuronal principles for course stabilization, altitude control and collision avoidance. <i>International Journal of Robotics Research</i> , 2007, 26, 759-772.	8.5	42
15	Body schema plasticity after stroke: Subjective and neurophysiological correlates of the rubber hand illusion. <i>Neuropsychologia</i> , 2017, 96, 61-69.	1.6	37
16	Toward Emotionally Adaptive Virtual Reality for Mental Health Applications. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2019, 23, 1877-1887.	6.3	37
17	NeuRow: An Immersive VR Environment for Motor-Imagery Training with the Use of Brain-Computer Interfaces and Vibrotactile Feedback. , 2016, , .		37
18	Real-Time Position Reconstruction with Hippocampal Place Cells. <i>Frontiers in Neuroscience</i> , 2011, 5, 85.	2.8	35

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19	EEG correlates of video game experience and user profile in motor-imagery-based brain-computer interaction. <i>Visual Computer</i> , 2017, 33, 533-546.	3.5	35
20	The Rehabilitation Gaming System: a Virtual Reality Based System for the Evaluation and Rehabilitation of Motor Deficits. , 2007, , .		32
21	Including Social Interaction in Stroke VR-Based Motor Rehabilitation Enhances Performance: A Pilot Study. <i>Presence: Teleoperators and Virtual Environments</i> , 2012, 21, 490-501.	0.6	29
22	RehabNet: A distributed architecture for motor and cognitive neuro-rehabilitation. , 2013, , .		29
23	RehabCity. , 2014, , .		28
24	Non-Linear Neuronal Responses as an Emergent Property of Afferent Networks: A Case Study of the Locust Lobula Giant Movement Detector. <i>PLoS Computational Biology</i> , 2010, 6, e1000701.	3.2	27
25	PASAR: An integrated model of prediction, anticipation, sensation, attention and response for artificial sensorimotor systems. <i>Information Sciences</i> , 2012, 186, 1-19.	6.9	27
26	The rehabilitation gaming system: a review. <i>Studies in Health Technology and Informatics</i> , 2009, 145, 65-83.	0.3	27
27	The impact of positive, negative and neutral stimuli in a virtual reality cognitive-motor rehabilitation task: a pilot study with stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016, 13, 70.	4.6	25
28	Lessons Learned from Gamifying Functional Fitness Training Through Human-Centered Design Methods in Older Adults. <i>Games for Health Journal</i> , 2019, 8, 387-406.	2.0	24
29	Insect-Like mapless navigation based on head direction cells and contextual learning using chemo-visual sensors. , 2009, , .		23
30	Virtual Reality for Sensorimotor Rehabilitation Post Stroke: Design Principles and Evidence. , 2016, , 573-603.		23
31	Usability and Cost-effectiveness in Brain-Computer Interaction. , 2016, , .		20
32	A collision avoidance model based on the Lobula giant movement detector (LGMD) neuron of the locust. , 0, , .		19
33	A model for the neuronal substrate of dead reckoning and memory in arthropods: a comparative computational and behavioral study. <i>Theory in Biosciences</i> , 2008, 127, 163-175.	1.4	18
34	Using a Multi-Task Adaptive VR System for Upper Limb Rehabilitation in the Acute Phase of Stroke. , 2008, , .		18
35	PhysioLab - a multivariate physiological computing toolbox for ECG, EMG and EDA signals: a case of study of cardiorespiratory fitness assessment in the elderly population. <i>Multimedia Tools and Applications</i> , 2018, 77, 11521-11546.	3.9	17
36	The use of game modes to promote engagement and social involvement in multi-user serious games: a within-person randomized trial with stroke survivors. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021, 18, 62.	4.6	16

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37	A Biologically Based Chemo-Sensing UAV for Humanitarian Demining. International Journal of Advanced Robotic Systems, 2007, 4, 21.	2.1	15
38	Optimizing motor imagery neurofeedback through the use of multimodal immersive virtual reality and motor priming. , 2015, , .		15
39	A Biologically Based Flight Control System for a Blimp-based UAV. , 0, , .		12
40	Supporting collective learning experiences in special education. , 2013, , .		12
41	User Experience of Interactive Technologies for People With Dementia: Comparative Observational Study. JMIR Serious Games, 2020, 8, e17565.	3.1	12
42	The Biocybernetic Loop Engine: An Integrated Tool for Creating Physiologically Adaptive Videogames. , 2017, , .		12
43	The Effects of Explicit and Implicit Interaction on User Experiences in a Mixed Reality Installation: The Synthetic Oracle. Presence: Teleoperators and Virtual Environments, 2009, 18, 277-285.	0.6	11
44	The Neurorehabilitation Training Toolkit (NTT): A Novel Worldwide Accessible Motor Training Approach for At-Home Rehabilitation after Stroke. Stroke Research and Treatment, 2012, 2012, 1-13.	0.8	11
45	Virtual Reality for Safe Testing and Development in Collaborative Robotics: Challenges and Perspectives. Electronics (Switzerland), 2022, 11, 1726.	3.1	10
46	Virtual reality with customized positive stimuli in a cognitive-motor rehabilitation task. , 2017, , .		9
47	Capturing Expert Knowledge for the Personalization of Cognitive Rehabilitation: Study Combining Computational Modeling and a Participatory Design Strategy. JMIR Rehabilitation and Assistive Technologies, 2018, 5, e10714.	2.2	9
48	Effects of prolonged multidimensional fitness training with exergames on the physical exertion levels of older adults. Visual Computer, 2021, 37, 19-30.	3.5	9
49	Clinical Effects of Immersive Multimodal BCI-VR Training after Bilateral Neuromodulation with rTMS on Upper Limb Motor Recovery after Stroke. A Study Protocol for a Randomized Controlled Trial. Medicina (Lithuania), 2021, 57, 736.	2.0	9
50	The Benefits of Custom Exergames for Fitness, Balance, and Health-Related Quality of Life: A Randomized Controlled Trial with Community-Dwelling Older Adults. Games for Health Journal, 2021, 10, 245-253.	2.0	9
51	An insect-based method for learning landmark reliability using expectation reinforcement in dynamic environments. , 2010, , .		8
52	Modulation of Physiological Responses and Activity Levels during Exergame Experiences. , 2016, , .		8
53	Exploring the synergies of a hybrid BCI - VR neurorehabilitation system. , 2011, , .		7
54	Moth-Like Chemo-Source Localization and Classification on an Indoor Autonomous Robot. , 0, , .		7

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55	Comparing adaptive cognitive training in virtual reality and paper-pencil in a sample of stroke patients. , 2019, , .		7
56	A usability study with healthcare professionals of a customizable framework for reminiscence and music based cognitive activities for people with dementia. , 2019, , .		7
57	Efficacy of adaptive cognitive training through desktop virtual reality and paper-and-pencil in the treatment of mental and behavioral disorders. <i>Virtual Reality</i> , 2023, 27, 291-306.	6.1	7
58	Chemotactic Search in Complex Environments. , 2004, , 181-207.		6
59	A dataset for the automatic assessment of functional senior fitness tests using kinect and physiological sensors. , 2016, , .		6
60	Impact of age, VR, immersion, and spatial resolution on classifier performance for a MI-based BCI. <i>Brain-Computer Interfaces</i> , 2022, 9, 169-178.	1.8	6
61	Automatic Cognitive Fatigue Detection Using Wearable fNIRS and Machine Learning. <i>Sensors</i> , 2022, 22, 4010.	3.8	6
62	Intelligent motor decision: From selective attention to a Bayesian world model. , 2008, , .		5
63	Eye Gaze Correlates of Motor Impairment in VR Observation of Motor Actions. <i>Methods of Information in Medicine</i> , 2016, 55, 79-83.	1.2	5
64	Reh@City v2.0: a comprehensive virtual reality cognitive training system based on personalized and adaptive simulations of activities of daily living. , 2019, , .		5
65	A virtual reality bus ride as an ecologically valid assessment of balance: a feasibility study. <i>Virtual Reality</i> , 2023, 27, 109-117.	6.1	5
66	Emotional Reactions to Music in Dementia Patients and Healthy Controls: Differential Responding Depends on the Mechanism. <i>Music & Science</i> , 2021, 4, 205920432110101.	1.0	5
67	re(PER)curso. , 2008, , .		4
68	Development and evaluation of a web-based cognitive task generator for personalized cognitive training. , 2015, , .		4
69	Measured and Perceived Physical Responses in Multidimensional Fitness Training through Exergames in Older Adults. , 2018, , .		4
70	Finding the Optimal Time Window for Increased Classification Accuracy during Motor Imagery. , 2021, , .		4
71	Evaluation of a Low-Cost Virtual Reality Surround-Screen Projection System. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2021, PP, 1-1.	4.4	4
72	Optimizing Performance of Non-Expert Users in Brain-Computer Interaction by Means of an Adaptive Performance Engine. <i>Lecture Notes in Computer Science</i> , 2015, , 202-211.	1.3	4

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73	Learning from the Moth: A Comparative Study of Robot-Based Odor Source Localization Strategies. , 2009, , .		3
74	The real-world localization and classification of multiple odours using a biologically based neurorobotics approach. , 2010, , .		3
75	WAYLA. , 2013, , .		3
76	Automating senior fitness testing through gesture detection with depth sensors. , 2015, , .		3
77	Music-based assistive feedback system for the exploration of virtual environments in individuals with dementia. , 2017, , .		3
78	AdaptNow â€œ A Revamped Look for the Web: An Online Web Enhancement Tool for the Elderly. Lecture Notes in Computer Science, 2014, , 113-120.	1.3	3
79	To Binge or not to Binge: Viewersâ€™ Moods and Behaviors During the Consumption of Subscribed Video Streaming. Lecture Notes in Computer Science, 2020, , 369-381.	1.3	3
80	The role of neural synchrony and rate in high-dimensional input systems. The Antennal Lobe: A case study. , 2010, , .		2
81	The effect of social gaming in virtual reality based rehabilitation of stroke patients. , 2011, , .		2
82	Visualization of multivariate physiological data for cardiorespiratory fitness assessment through ECG (R-peak) analysis. , 2015, 2015, 390-3.		2
83	Development and Assessment of a Self-paced BCI-VR Paradigm Using Multimodal Stimulation and Adaptive Performance. Lecture Notes in Computer Science, 2019, , 1-22.	1.3	2
84	Action-Planning and Execution from Multimodal Cues: An Integrated Cognitive Model for Artificial Autonomous Systems. Studies in Computational Intelligence, 2010, , 479-497.	0.9	2
85	An Assistive Mobile Platform for Delivering Knowledge of Performance Feedback. , 2014, , .		2
86	Humanitarian Demining Using an Insect Based Chemical Unmanned Aerial Vehicle. , 0, , .		2
87	Combining virtual reality and a myoelectric limb orthosis to restore active movement after stroke: a pilot study. International Journal on Disability and Human Development, 2014, 13, .	0.2	1
88	Open Rehab Initiative: Second development iteration. , 2017, , .		1
89	Efficacy of Augmented Reality-based Virtual Hiking in Cardiorespiratory Endurance: A Pilot Study. , 2021, , .		1
90	Eye Gaze Patterns after Stroke: Correlates of a VR Action Execution and Observation Task. , 2014, , .		1

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91	Diving into a Decade of Games for Health Research: A Systematic Review. <i>Advances in Intelligent Systems and Computing</i> , 2021, , 520-528.	0.6	1
92	Odour Mapping Under Strong Backgrounds With a Metal Oxide Sensor Array. , 2011, , .		0
93	14. An Integrative Framework for Tailoring Virtual Reality Based Motor Rehabilitation After Stroke. , 2015, , 244-261.		0
94	Applications and Issues for Physiological Computing Systems: An Introduction to the Special Issue. <i>Interacting With Computers</i> , 2015, 27, 489-491.	1.5	0
95	The Effect of Neurofeedback Training inÂCAVE-VR for Enhancing Working Memory. <i>Human-computer Interaction Series</i> , 2021, , 11-45.	0.6	0
96	Personalization of Assistance and Knowledge of Performance Feedback on a Hybrid Mobile and Myo-electric Robotic System for Motor Rehabilitation After Stroke. <i>Communications in Computer and Information Science</i> , 2015, , 91-103.	0.5	0
97	From Body Tracking Interaction in Floor Projection Displays to Elderly Cardiorespiratory Training Through Exergaming. <i>Lecture Notes in Computer Science</i> , 2019, , 58-77.	1.3	0