

# Calogero M Oddo

## List of Publications by Year in descending order

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90  
papers

4,730  
citations

172457

29  
h-index

98798

67  
g-index

97  
all docs

97  
docs citations

97  
times ranked

5012  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Autonomous Robotic Platform for Manipulation and Inspection of Metallic Surfaces in Industry 4.0. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1691-1706.	5.2	8
2	Hybrid 6-DoF Magnetic Localization for Robotic Capsule Endoscopes Compatible With High-Grade Magnetic Field Navigation. IEEE Access, 2022, 10, 4414-4430.	4.2	6
3	Selective stimulation with intraneural electrodes for bionic limb prostheses can contribute to shed light on human touch sensorimotor integration. Journal of Physiology, 2022, 600, 1279-1280.	2.9	0
4	Digital transformation, for better or worse: a critical multi-level research agenda. R and D Management, 2022, 52, 930-954.	5.3	55
5	Functional mimicry of Ruffini receptors with fibre Bragg gratings and deep neural networks enables a bio-inspired large-area tactile-sensitive skin. Nature Machine Intelligence, 2022, 4, 425-435.	16.0	53
6	A meta-learning algorithm for respiratory flow prediction from FBG-based wearables in unrestrained conditions. Artificial Intelligence in Medicine, 2022, 130, 102328.	6.5	7
7	Increased Symmetry of Lower-Limb Amputees Walking With Concurrent Bilateral Vibrotactile Feedback. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 74-84.	4.9	20
8	Implantable Fiber Bragg Grating Sensor for Continuous Heart Activity Monitoring: <i>Ex-Vivo</i> and <i>In-Vivo</i> Validation. IEEE Sensors Journal, 2021, 21, 14051-14059.	4.7	11
9	Endoscopic Tactile Capsule for Non-Polypoid Colorectal Tumour Detection. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 64-73.	3.2	5
10	Soft large area FBG tactile sensors for exteroception and proprioception in a collaborative robotic manipulator. , 2021, , .		2
11	Tradeoff between accuracy and computational cost of Euler and Runge Kutta ODE solvers for the Izhikevich spiking neuron model. , 2021, , .		3
12	Intraoperative-technologies advancements in automated cancer detection: a narrative review. , 2021, , .		1
13	A Wearable System Based on Flexible Sensors for Unobtrusive Respiratory Monitoring in Occupational Settings. IEEE Sensors Journal, 2021, 21, 14369-14378.	4.7	32
14	Guest Editorial Special Issue on Advances and Current Trends in Sensing Physiological Parameters for Human Wellness and Patient Monitoring. IEEE Sensors Journal, 2021, 21, 13965-13966.	4.7	0
15	Hydrothermally Grown ZnO Nanorods as Promising Materials for Low Cost Electronic Skin. ChemNanoMat, 2020, 6, 15-31.	2.8	23
16	A Machine-Learning-Based Approach to Solve Both Contact Location and Force in Soft Material Tactile Sensors. Soft Robotics, 2020, 7, 409-420.	8.0	61
17	Cuneate spiking neural network learning to classify naturalistic texture stimuli under varying sensing conditions. Neural Networks, 2020, 123, 273-287.	5.9	12
18	Fiber Bragg Gratings for Medical Applications and Future Challenges: A Review. IEEE Access, 2020, 8, 156863-156888.	4.2	187

#	ARTICLE	IF	CITATIONS
19	Assessment of Intuitiveness and Comfort of Wearable Haptic Feedback Strategies for Assisting Level and Stair Walking. <i>Electronics (Switzerland)</i> , 2020, 9, 1676.	3.1	5
20	Visual-Based Defect Detection and Classification Approaches for Industrial Applications—A SURVEY. <i>Sensors</i> , 2020, 20, 1459.	3.8	182
21	Fluidic Haptic Interface for Mechano-Tactile Feedback. <i>IEEE Transactions on Haptics</i> , 2020, 13, 204-210.	2.7	13
22	An Improved Strategy for Detection and Localization of Nodules in Liver Tissues by a 16 MHz Needle Ultrasonic Probe Mounted on a Robotic Platform. <i>Sensors</i> , 2020, 20, 1183.	3.8	1
23	A Multi-Parametric Wearable System to Monitor Neck Movements and Respiratory Frequency of Computer Workers. <i>Sensors</i> , 2020, 20, 536.	3.8	60
24	Morphological Neural Computation Restores Discrimination of Naturalistic Textures in Trans-radial Amputees. <i>Scientific Reports</i> , 2020, 10, 527.	3.3	30
25	Seedless Hydrothermal Growth of ZnO Nanorods as a Promising Route for Flexible Tactile Sensors. <i>Nanomaterials</i> , 2020, 10, 977.	4.1	13
26	Cardio-Respiratory Monitoring in Archery Using a Smart Textile Based on Flexible Fiber Bragg Grating Sensors. <i>Sensors</i> , 2019, 19, 3581.	3.8	82
27	Real time position control of industrial robot over ethernet based communication framework. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	1
28	Editorial: Human-Like Advances in Robotics: Motion, Actuation, Sensing, Cognition and Control. <i>Frontiers in Neurorobotics</i> , 2019, 13, 85.	2.8	2
29	Tactile Decoding of Edge Orientation With Artificial Cuneate Neurons in Dynamic Conditions. <i>Frontiers in Neurorobotics</i> , 2019, 13, 44.	2.8	9
30	A Mechatronic Platform for Computer Aided Detection of Nodules in Anatomopathological Analyses via Stiffness and Ultrasound Measurements. <i>Sensors</i> , 2019, 19, 2512.	3.8	4
31	Design and Development of Large-Area FBG-Based Sensing Skin for Collaborative Robotics. , 2019, , .		7
32	Wearable System Based on Flexible FBG for Respiratory and Cardiac Monitoring. <i>IEEE Sensors Journal</i> , 2019, 19, 7391-7398.	4.7	147
33	Ubiquitous Neocortical Decoding of Tactile Input Patterns. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 140.	3.7	16
34	Tactile Sensing and Control of Robotic Manipulator Integrating Fiber Bragg Grating Strain-Sensor. <i>Frontiers in Neurorobotics</i> , 2019, 13, 8.	2.8	30
35	Convergence of regular spiking and intrinsically bursting Izhikevich neuron models as a function of discretization time with Euler method. <i>Neurocomputing</i> , 2019, 350, 237-247.	5.9	8
36	A Neuromorphic Model to Match the Spiking Activity of Merkel Mechanoreceptors With Biomimetic Tactile Sensors for Bioengineering Applications. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2019, 1, 97-105.	3.2	6

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37	Haptic Glove and Platform with Gestural Control For Neuromorphic Tactile Sensory Feedback In Medical Telepresence. Sensors, 2019, 19, 641.	3.8	15
38	Identification of Slippage on Naturalistic Surfaces via Wavelet Transform of Tactile Signals. IEEE Sensors Journal, 2019, 19, 1260-1268.	4.7	8
39	A Wearable Haptic Feedback System for Assisting Lower-Limb Amputees in Multiple Locomotion Tasks. Biosystems and Biorobotics, 2019, , 115-119.	0.3	4
40	Neuromorphic tactile sensor array based on fiber Bragg gratings to encode object qualities. , 2019, , .		2
41	Bilateral Tactile Input Patterns Decoded at Comparable Levels But Different Time Scales in Neocortical Neurons. Journal of Neuroscience, 2018, 38, 3669-3679.	3.6	13
42	Haptic-assistive technologies for audition and vision sensory disabilities. Disability and Rehabilitation: Assistive Technology, 2018, 13, 394-421.	2.2	46
43	Neuromorphic Artificial Sense of Touch: Bridging Robotics and Neuroscience. Springer Proceedings in Advanced Robotics, 2018, , 617-630.	1.3	6
44	Intracellular Dynamics in Cuneate Nucleus Neurons Support Self-Stabilizing Learning of Generalizable Tactile Representations. Frontiers in Cellular Neuroscience, 2018, 12, 210.	3.7	30
45	Neuromorphic Vibrotactile Stimulation of Fingertips for Encoding Object Stiffness in Telepresence Sensory Substitution and Augmentation Applications. Sensors, 2018, 18, 261.	3.8	18
46	Neuromorphic haptic glove and platform with gestural control for tactile sensory feedback in medical telepresence applications. , 2018, , .		3
47	Neuromorphic Artificial Touch for Categorization of Naturalistic Textures. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 819-829.	11.3	79
48	Spatiotemporal Dynamics of the Cortical Responses Induced by a Prolonged Tactile Stimulation of the Human Fingertips. Brain Topography, 2017, 30, 473-485.	1.8	29
49	Artificial spatiotemporal touch inputs reveal complementary decoding in neocortical neurons. Scientific Reports, 2017, 7, 45898.	3.3	37
50	Robotic endoscopic capsule for closed-loop force-based control and safety strategies. , 2017, , .		3
51	Slippage Detection with Piezoresistive Tactile Sensors. Sensors, 2017, 17, 1844.	3.8	38
52	Endoscopic tactile instrument for remote tissue palpation in colonoscopic procedures. , 2017, , .		3
53	Encapsulation of Piezoelectric Transducers for Sensory Augmentation and Substitution with Wearable Haptic Devices. Micromachines, 2017, 8, 270.	2.9	23
54	An innovative robotic platform for magnetically-driven painless colonoscopy. Annals of Translational Medicine, 2017, 5, 421-421.	1.7	16

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55	Vision-Based Pose Estimation for Robot-Mediated Hand Telerehabilitation. <i>Sensors</i> , 2016, 16, 208.	3.8	26
56	Frontiers of robotic endoscopic capsules: a review. <i>Journal of Micro-Bio Robotics</i> , 2016, 11, 1-18.	2.1	116
57	Design and preliminary evaluation of haptic devices for upper limb stimulation and integration within a virtual reality cave. , 2016, , .		1
58	Long-latency components of somatosensory evoked potentials during passive tactile perception of gratings. , 2016, 2016, 1648-1651.		13
59	Insights and Perspectives on Sensory-Motor Integration and Rehabilitation. <i>Multisensory Research</i> , 2016, 29, 607-633.	1.1	9
60	Intraneural stimulation elicits discrimination of textural features by artificial fingertip in intact and amputee humans. <i>ELife</i> , 2016, 5, e09148.	6.0	286
61	PARLOMA â€œ A Novel Human-Robot Interaction System for Deaf-Blind Remote Communication. <i>International Journal of Advanced Robotic Systems</i> , 2015, 12, 57.	2.1	20
62	Decoding of naturalistic textures from spike patterns of neuromorphic artificial mechanoreceptors. <i>BMC Neuroscience</i> , 2015, 16, .	1.9	2
63	Feedforward Neural Network for Force Coding of an MRI-Compatible Tactile Sensor Array Based on Fiber Bragg Grating. <i>Journal of Sensors</i> , 2015, 2015, 1-9.	1.1	33
64	Neuro-robotics Paradigm for Intelligent Assistive Technologies. <i>Springer Tracts in Advanced Robotics</i> , 2015, , 1-40.	0.4	4
65	A bio-hybrid mechanotransduction system based on ciliate cells. <i>Microelectronic Engineering</i> , 2015, 144, 51-56.	2.4	5
66	Toward the Development of a Neuro-Controlled Bidirectional Hand Prosthesis. <i>Lecture Notes in Computer Science</i> , 2015, , 105-110.	1.3	0
67	Review of assistive strategies in powered lower-limb orthoses and exoskeletons. <i>Robotics and Autonomous Systems</i> , 2015, 64, 120-136.	5.1	566
68	Bioinspired Fingertip for Anthropomorphic Robotic Hands. <i>Applied Bionics and Biomechanics</i> , 2014, 11, 25-38.	1.1	19
69	Microfabricated Tactile Sensors for Biomedical Applications: A Review. <i>Biosensors</i> , 2014, 4, 422-448.	4.7	88
70	Real-Time Single Camera Hand Gesture Recognition System for Remote Deaf-Blind Communication. <i>Lecture Notes in Computer Science</i> , 2014, , 35-52.	1.3	8
71	A Bio-Hybrid Tactile Sensor Incorporating Living Artificial Skin and an Impedance Sensing Array. <i>Sensors</i> , 2014, 14, 23781-23802.	3.8	7
72	Piezoelectric Energy Harvesting Solutions. <i>Sensors</i> , 2014, 14, 4755-4790.	3.8	319

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73	A Wireless Flexible Sensorized Insole for Gait Analysis. <i>Sensors</i> , 2014, 14, 1073-1093.	3.8	180
74	Restoring Natural Sensory Feedback in Real-Time Bidirectional Hand Prostheses. <i>Science Translational Medicine</i> , 2014, 6, 222ra19.	12.4	805
75	Physical Factors Influencing Pleasant Touch during Passive Fingertip Stimulation. <i>PLoS ONE</i> , 2014, 9, e101361.	2.5	31
76	Synthetic and Bio-Artificial Tactile Sensing: A Review. <i>Sensors</i> , 2013, 13, 1435-1466.	3.8	124
77	Soft-neuromorphic artificial touch for applications in neuro-robotics. , 2012, , .		24
78	Learning tactile skills through curious exploration. <i>Frontiers in Neurorobotics</i> , 2012, 6, 6.	2.8	41
79	Roughness Encoding for Discrimination of Surfaces in Artificial Active-Touch. <i>IEEE Transactions on Robotics</i> , 2011, 27, 522-533.	10.3	125
80	A mechatronic platform for human touch studies. <i>Mechatronics</i> , 2011, 21, 604-613.	3.3	26
81	A capacitive tactile sensor array for surface texture discrimination. <i>Microelectronic Engineering</i> , 2011, 88, 1811-1813.	2.4	101
82	Development of a bioinspired MEMS based capacitive tactile sensor for a robotic finger. <i>Sensors and Actuators A: Physical</i> , 2011, 165, 221-229.	4.1	87
83	Roughness Encoding in Human and Biomimetic Artificial Touch: Spatiotemporal Frequency Modulation and Structural Anisotropy of Fingerprints. <i>Sensors</i> , 2011, 11, 5596-5615.	3.8	46
84	Incorporation of Novel MEMS Tactile Sensors into Tissue Engineered Skin. <i>International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering</i> , 2010, , .	0.0	2
85	Contact Force and Duration Effects on Static and Dynamic Tactile Texture Discrimination. <i>Lecture Notes in Computer Science</i> , 2010, , 9-16.	1.3	2
86	Artificial Roughness Encoding with a Bio-inspired MEMS-based Tactile Sensor Array. <i>Sensors</i> , 2009, 9, 3161-3183.	3.8	58
87	Development of a Biomimetic MEMS based Capacitive Tactile Sensor. <i>Procedia Chemistry</i> , 2009, 1, 124-127.	0.7	10
88	A biomimetic MEMS-based tactile sensor array with fingerprints integrated in a robotic fingertip for artificial roughness encoding. , 2009, , .		20
89	Investigation on calibration methods for multi-axis, linear and redundant force sensors. <i>Measurement Science and Technology</i> , 2007, 18, 623-631.	2.6	45
90	A simple highly efficient non invasive EMG-based HMI. , 2006, 2006, 3403-6.		3