

Federica Caselli

List of Publications by Year in descending order

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46
papers

1,153
citations

394421

19
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395702

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all docs

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docs citations

46
times ranked

794
citing authors

#	ARTICLE	IF	CITATIONS
1	Mammographic Images Enhancement and Denoising for Breast Cancer Detection Using Dyadic Wavelet Processing. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 1422-1430.	4.7	163
2	Single-cell microfluidic impedance cytometry: from raw signals to cell phenotypes using data analytics. Lab on A Chip, 2021, 21, 22-54.	6.0	109
3	An impedance-based flow microcytometer for single cell morphology discrimination. Lab on A Chip, 2014, 14, 2548.	6.0	68
4	High accuracy particle analysis using sheathless microfluidic impedance cytometry. Lab on A Chip, 2016, 16, 2467-2473.	6.0	67
5	Coplanar electrode microfluidic chip enabling accurate sheathless impedance cytometry. Lab on A Chip, 2017, 17, 1158-1166.	6.0	65
6	A neural network approach for real-time particle/cell characterization in microfluidic impedance cytometry. Analytical and Bioanalytical Chemistry, 2020, 412, 3835-3845.	3.7	62
7	High-throughput label-free characterization of viable, necrotic and apoptotic human lymphoma cells in a coplanar-electrode microfluidic impedance chip. Biosensors and Bioelectronics, 2020, 150, 111887.	10.1	51
8	Mitigating positional dependence in coplanar electrode Coulter-type microfluidic devices. Sensors and Actuators B: Chemical, 2017, 247, 580-586.	7.8	50
9	A novel wiring scheme for standard chips enabling high-accuracy impedance cytometry. Sensors and Actuators B: Chemical, 2018, 256, 580-589.	7.8	48
10	EIT-Inspired Microfluidic Cytometer for Single-Cell Dielectric Spectroscopy. Journal of Microelectromechanical Systems, 2010, 19, 1029-1040.	2.5	33
11	Deciphering impedance cytometry signals with neural networks. Lab on A Chip, 2022, 22, 1714-1722.	6.0	32
12	High-throughput electrical position detection of single flowing particles/cells with non-spherical shape. Lab on A Chip, 2019, 19, 1818-1827.	6.0	31
13	A Simple and Robust Event-Detection Algorithm for Single-Cell Impedance Cytometry. IEEE Transactions on Biomedical Engineering, 2016, 63, 415-422.	4.2	27
14	Polar decomposition based corotational framework for triangular shell elements with distributed loads. International Journal for Numerical Methods in Engineering, 2013, 95, 499-528.	2.8	24
15	Modified Red Blood Cells as Multimodal Standards for Benchmarking Single-Cell Cytometry and Separation Based on Electrical Physiology. Analytical Chemistry, 2022, 94, 2865-2872.	6.5	24
16	Performance evaluation of a region growing procedure for mammographic breast lesion identification. Computer Standards and Interfaces, 2011, 33, 128-135.	5.4	22
17	Electrical measurement of cross-sectional position of particles flowing through a microchannel. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	22
18	Modeling, Simulation, and Performance Evaluation of a Novel Microfluidic Impedance Cytometer for Morphology-Based Cell Discrimination. Journal of Microelectromechanical Systems, 2014, 23, 785-794.	2.5	20

#	ARTICLE	IF	CITATIONS
19	A Bayesian Approach for Coincidence Resolution in Microfluidic Impedance Cytometry. IEEE Transactions on Biomedical Engineering, 2021, 68, 340-349.	4.2	20
20	Simulation and performance analysis of a novel high-accuracy sheathless microfluidic impedance cytometer with coplanar electrode layout. Medical Engineering and Physics, 2017, 48, 81-89.	1.7	18
21	Electro-Optical Classification of Pollen Grains via Microfluidics and Machine Learning. IEEE Transactions on Biomedical Engineering, 2022, 69, 921-931.	4.2	18
22	A new SMA shell element based on the corotational formulation. Computational Mechanics, 2014, 54, 1315-1329.	4.0	17
23	A simple formula for the effective complex conductivity of periodic fibrous composites with interfacial impedance and applications to biological tissues. Journal Physics D: Applied Physics, 2008, 41, 115506.	2.8	16
24	A mixed tetrahedral element with nodal rotations for large-displacement analysis of inelastic structures. International Journal for Numerical Methods in Engineering, 2016, 108, 722-749.	2.8	16
25	An innovative iterative thresholding algorithm for tumour segmentation and volumetric quantification on SPECT images: Monte Carlo-based methodology and validation. Medical Physics, 2011, 38, 3050-3061.	3.0	15
26	SUBBAND VARIANCE COMPUTATION OF HOMOSCEDASTIC ADDITIVE NOISE IN DISCRETE DYADIC WAVELET TRANSFORM. International Journal of Wavelets, Multiresolution and Information Processing, 2008, 06, 895-906.	1.3	14
27	Numerical Investigation of a Novel Wiring Scheme Enabling Simple and Accurate Impedance Cytometry. Micromachines, 2017, 8, 283.	2.9	12
28	Collision of three balls on a plane. Computational Mechanics, 2009, 43, 743-754.	4.0	11
29	A corotational flat triangular element for large strain analysis of thin shells with application to soft biological tissues. Computational Mechanics, 2014, 54, 847-864.	4.0	11
30	A simple electrical approach to monitor dielectrophoretic focusing of particles flowing in a microchannel. Electrophoresis, 2019, 40, 1400-1407.	2.4	10
31	Effective computational modeling of erythrocyte electro-deformation. Meccanica, 2017, 52, 613-631.	2.0	8
32	A corotational triangular facet shell element for geometrically nonlinear analysis of thin piezoactuated structures. Composite Structures, 2017, 172, 267-281.	5.8	8
33	An isogeometric analysis formulation for red blood cell electro-deformation modeling. Computer Methods in Applied Mechanics and Engineering, 2018, 338, 392-411.	6.6	8
34	Wavelet based adaptive algorithm for mammographic images enhancement and denoising. , 2005, , .		7
35	State update algorithm for associative elastic-plastic pressure-insensitive materials by incremental energy minimization. Frattura Ed Integrita Strutturale, 2014, 8, 111-127.	0.9	7
36	Oil-in-Water fL Droplets by Interfacial Spontaneous Fragmentation and Their Electrical Characterization. Langmuir, 2019, 35, 4936-4945.	3.5	7

#	ARTICLE	IF	CITATIONS
37	Wavelet packet transform processing for interference excision in TT&C Spread-Spectrum Transponder. , 2008, , .		3
38	Quasi-potentials of the entropy functionals for scalar conservation laws. Journal of Functional Analysis, 2010, 258, 534-558.	1.4	3
39	Adaptive Interference Rejection Filtering in On-Board Direct-Sequence / Spread-Spectrum Transponder for TT&C Applications: Analysis, Simulation & Breadboard Test Results. , 2008, , .		2
40	Corotational flat triangular elements for the nonlinear analysis of thin shell structures. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 177-178.	0.2	1
41	Length measurement and spatial orientation reconstruction of single nanowires. Nanotechnology, 2018, 29, 375704.	2.6	1
42	Bioanalytics and higher order electrokinetics. Analytical and Bioanalytical Chemistry, 2020, 412, 3799-3800.	3.7	1
43	Single-cell electrical characterization. , 2022, , 71-99.		1
44	Collisions of Rigid Solids: Three Balls in a Box. Springer Series in Solid and Structural Mechanics, 2017, , 67-77.	0.2	0
45	Mammographic Images Enhancement and Denoising for Microcalcification Detection Using Dyadic Wavelet Processing. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0
46	Collisions of Rigid Solids: Three Disks in a Plane. Springer Series in Solid and Structural Mechanics, 2017, , 57-66.	0.2	0