Irene Costantini

List of Publications by Year in descending order

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Version: 2024-02-01

64 papers

1,132 citations

623734 14 h-index 31 g-index

75 all docs

75 docs citations

75 times ranked 1600 citing authors

#	Article	IF	Citations
1	A versatile clearing agent for multi-modal brain imaging. Scientific Reports, 2015, 5, 9808.	3.3	228
2	Clearing of fixed tissue: a review from a microscopist's perspective. Journal of Biomedical Optics, 2016, 21, 081205.	2.6	140
3	In-vivo and ex-vivo optical clearing methods for biological tissues: review. Biomedical Optics Express, 2019, 10, 5251.	2.9	133
4	Whole-Brain Vasculature Reconstruction at the Single Capillary Level. Scientific Reports, 2018, 8, 12573.	3.3	96
5	Gene polymorphisms in pattern recognition receptors and susceptibility to idiopathic recurrent vulvovaginal candidiasis. Frontiers in Microbiology, 2014, 5, 483.	3.5	66
6	Cardiac sympathetic innervation network shapes the myocardium by locally controlling cardiomyocyte size through the cellular proteolytic machinery. Journal of Physiology, 2019, 597, 3639-3656.	2.9	37
7	Correlative two-photon and light sheet microscopy. Methods, 2014, 66, 268-272.	3.8	34
8	A promoter polymorphism in human interleukin-32 modulates its expression and influences the risk and the outcome of epithelial cell-derived thyroid carcinoma. Carcinogenesis, 2013, 34, 1529-1535.	2.8	32
9	Universal autofocus for quantitative volumetric microscopy of whole mouse brains. Nature Methods, 2021, 18, 953-958.	19.0	32
10	Dissecting Neuronal Activation on a Brain-Wide Scale With Immediate Early Genes. Frontiers in Neuroscience, 2020, 14, 569517.	2.8	31
11	Comprehensive optical and data management infrastructure for high-throughput light-sheet microscopy of whole mouse brains. Neurophotonics, 2015, 2, 041404.	3.3	26
12	Autofluorescence enhancement for label-free imaging of myelinated fibers in mammalian brains. Scientific Reports, 2021, 11, 8038.	3.3	24
13	Toward a High-Resolution Reconstruction of 3D Nerve Fiber Architectures and Crossings in the Brain Using Light Scattering Measurements and Finite-Difference Time-Domain Simulations. Physical Review X, 2020, 10, .	8.9	20
14	Towards a clearer view of sympathetic innervation of cardiac and skeletal muscles. Progress in Biophysics and Molecular Biology, 2020, 154, 80-93.	2.9	19
15	Large-scale, cell-resolution volumetric mapping allows layer-specific investigation of human brain cytoarchitecture. Biomedical Optics Express, 2021, 12, 3684.	2.9	18
16	3D molecular phenotyping of cleared human brain tissues with light-sheet fluorescence microscopy. Communications Biology, 2022, 5, 447.	4.4	18
17	Neurophotonic Tools for Microscopic Measurements and Manipulation: Status Report. Neurophotonics, 2022, 9, 013001.	3.3	17
18	Label-free near-infrared reflectance microscopy as a complimentary tool for two-photon fluorescence brain imaging. Biomedical Optics Express, 2015, 6, 4483.	2.9	16

#	Article	IF	Citations
19	High-Fidelity Imaging in Brain-Wide Structural Studies Using Light-Sheet Microscopy. ENeuro, 2018, 5, ENEURO.0124-18.2018.	1.9	15
20	Micron-scale Resolution Optical Tomography of Entire Mouse Brains with Confocal Light Sheet Microscopy. Journal of Visualized Experiments, 2013, , .	0.3	14
21	Improving the characterization of ex vivo human brain optical properties using high numerical aperture optical coherence tomography by spatially constraining the confocal parameters. Neurophotonics, 2020, 7, 045005.	3.3	14
22	3D imaging and morphometry of the heart capillary system in spontaneously hypertensive rats and normotensive controls. Scientific Reports, 2020, 10, 14276.	3.3	12
23	Optical clearing in cardiac imaging: A comparative study. Progress in Biophysics and Molecular Biology, 2022, 168, 10-17.	2.9	10
24	Exploring the human cerebral cortex using confocal microscopy. Progress in Biophysics and Molecular Biology, 2022, 168, 3-9.	2.9	8
25	Comparison of Different Tissue Clearing Methods for Three-Dimensional Reconstruction of Human Brain Cellular Anatomy Using Advanced Imaging Techniques. Frontiers in Neuroanatomy, 2021, 15, 752234.	1.7	8
26	Automatic Segmentation of Neurons in 3D Samples of Human Brain Cortex. Lecture Notes in Computer Science, 2018, , 78-85.	1.3	7
27	Quantification of Myocyte Disarray in Human Cardiac Tissue. Frontiers in Physiology, 2021, 12, 750364.	2.8	7
28	Software Tools for Efficient Processing of High-Resolution 3D Images of Macroscopic Brain Samples. , 2018, , .		5
29	Automated computation of nerve fibre inclinations from 3D polarised light imaging measurements of brain tissue. Scientific Reports, 2022, 12, 4328.	3.3	5
30	Semantic Segmentation of Neuronal Bodies in Fluorescence Microscopy Using a 2D+3D CNN Training Strategy with Sparsely Annotated Data. Lecture Notes in Computer Science, 2020, , 95-99.	1.3	3
31	Computer-based automatic identification of neurons in gigavoxel-sized 3D human brain images. , 2015, 2015, 7724-7.		2
32	Polarized Light Imaging and Two-Photon Fluorescence Microscopy correlative approach for 3D reconstruction of the orientation of myelinated fibers. , 2017, , .		2
33	Fast volumetric mapping of human brain slices. , 2020, , .		2
34	A new versatile clearing method for brain imaging. , 2015, , .		1
35	Brain-wide charting of neuronal activation maps with cellular resolution. , 2015, , .		1
36	Towards automated neuron tracing via global and local 3D image analysis. , 2016, , .		1

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#	Article	lF	Citations
37	Fast, image-based autofocus system for high-resolution optical microscopy of whole mouse brains. , 2017, , .		1
38	Advanced Morpho-Functional Analysis on Ventricular and Atrial Tissue Reveals Cross-Bridge Kinetics Alterations and Sarcomere Energetic Impairment in Hcm Patients. Biophysical Journal, 2019, 116, 29a.	0.5	1
39	Towards a Full Volumetric Atlas of Cell-specific Neuronal Spatial Organization in the Entire Mouse Brain. , 2018, , .		1
40	Mesoscopic Optical Imaging of Whole Mouse Heart. Journal of Visualized Experiments, 2021, , .	0.3	1
41	Brain-wide charting of neuronal activation maps with cellular resolution. , 2015, , .		1
42	Fast volumetric mapping of human brain slices. , 2020, , .		1
43	Neural plasticity explored by correlative two-photon and electron/SPIM microscopy. Proceedings of SPIE, 2013, , .	0.8	0
44	Exploring the brain on multiple scales with correlative two-photon and light sheet microscopy. Proceedings of SPIE, 2014, , .	0.8	0
45	Brain imaging from the nano- to the macro-scale. , 2015, , .		0
46	A versatile new technique to clear mouse and human brain. Proceedings of SPIE, 2015, , .	0.8	0
47	Whole brain optical imaging. Proceedings of SPIE, 2015, , .	0.8	0
48	Multiphoton microscopy in brain imaging. , 2015, , .		0
49	Label-free NIR reflectance imaging as a complimentary tool for two-photon fluorescence microscopy: multimodal investigation of stroke (Conference Presentation). , 2016, , .		0
50	Mapping whole-brain activity with cellular resolution by light-sheet microscopy and high-throughput image analysis (Conference Presentation). , 2016 , , .		0
51	Optimal staining and clearing protocol for whole mouse brain vasculature imaging with light-sheet microscopy. Proceedings of SPIE, 2017, , .	0.8	0
52	Correlative polarized light imaging and two-photon fluorescence microscopy for 3D myelinated fibers reconstruction. Proceedings of SPIE, 2017, , .	0.8	0
53	P276Whole heart cytoarchitecture at sub-cellular resolution. Cardiovascular Research, 2018, 114, S71-S71.	3.8	0
54	Whole Heart Cytoarchitecture at Micron-Scale Resolution. Biophysical Journal, 2018, 114, 384a.	0.5	0

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55	Structural Mapping of Action Potential Propagation Pathways through Healthy and Diseased Heart. Biophysical Journal, 2020, 118, 493a.	0.5	O
56	3D Imaging and Morphometry of the Coronary Microcirculation in Spontaneously Hypertensive Rats and Normotensive Controls. Biophysical Journal, 2020, 118, 424a.	0.5	0
57	A versatile new technique to clear mouse and human brain. , 2015, , .		0
58	A multi modal clearing method for brain imaging. , 2015, , .		0
59	Combination of two-photon fluorescence microscopy and label-free near-infrared reflectance: a new complementary approach for brain imaging. , 2016, , .		0
60	Mapping the quantitative cytoarchitecture of the whole mouse brain by light-sheet microscopy and digital brain atlasing (Conference Presentation). , 2018 , , .		0
61	Whole heart cytoarchitecture at micron-scale resolution (Conference Presentation)., 2018,,.		0
62	Techniques for methodical, optical and computational automation in light-sheet microscopy. , 2019, , .		0
63	Three-dimensional analysis of human brain cytoarchitectonics by means of a SWITCH/TDE-combined clearing method., 2019,,.		0
64	Swift light sheet volumetric charting of large human brain portions. , 2020, , .		0