Emmanuel Beaurepaire

List of Publications by Year
in descending order

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120 papers	7,022 citations	76031 42 h-index	68831 81 g-index
132 all docs	132 docs citations	132 times ranked	7798 citing authors

#	Article	IF	Citations
1	Intravital deep-tumor single-beam 3-photon, 4-photon, and harmonic microscopy. ELife, 2022, 11, .	2.8	31
2	nAdder: A scale-space approach for the 3D analysis of neuronal traces. PLoS Computational Biology, 2022, 18, e1010211.	1.5	0
3	Modeling nonlinear microscopy near index-mismatched interfaces. Optica, 2021, 8, 944.	4.8	5
4	Dynamic spatiotemporal coordination of neural stem cell fate decisions occurs through local feedback in the adult vertebrate brain. Cell Stem Cell, 2021, 28, 1457-1472.e12.	5.2	29
5	Simultaneous NAD(P)H and FAD fluorescence lifetime microscopy of long UVAâ€"induced metabolic stress in reconstructed human skin. Scientific Reports, 2021, 11, 22171.	1.6	20
6	Fast cardiac imaging in live embryos using multiphoton light-sheet microscopy at low laser repetition rate. , 2021, , .		0
7	The TPLATE complex mediates membrane bending during plant clathrinâ€"mediated endocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	26
8	Fast In Vivo Imaging of SHG Nanoprobes with Multiphoton Light-Sheet Microscopy. ACS Photonics, 2020, 7, 1036-1049.	3.2	29
9	Fast in vivo multiphoton light-sheet microscopy with optimal pulse frequency. Biomedical Optics Express, 2020, 11, 6012.	1.5	19
10	In Utero Electroporation of Multiaddressable Genome-Integrating Color (MAGIC) Markers to Individualize Cortical Mouse Astrocytes. Journal of Visualized Experiments, 2020, , .	0.2	2
11	Multiphoton Light-sheet Microscopy at Optimal Pulse Frequency for Fast In Vivo Imaging. , 2020, , .		0
12	Advances in fast multiphoton microscopy using light-sheet illumination. , 2020, , .		0
13	Cortical astrocytes develop in a plastic manner at both clonal and cellular levels. Nature Communications, 2019, 10, 4884.	5.8	87
14	An actin-based viscoplastic lock ensures progressive body-axis elongation. Nature, 2019, 573, 266-270.	13.7	54
15	High-speed polarization-resolved third-harmonic microscopy. Optica, 2019, 6, 385.	4.8	24
16	Multicolor multiscale brain imaging with chromatic multiphoton serial microscopy. Nature Communications, 2019, 10, 1662.	5.8	75
17	Monitoring dynamic collagen reorganization during skin stretching with fast polarizationâ€resolved second harmonic generation imaging. Journal of Biophotonics, 2019, 12, e201800336.	1.1	31
18	Third harmonic generation imaging and analysis of the effect of low gravity on the lacuno-canalicular network of mouse bone. PLoS ONE, 2019, 14, e0209079.	1.1	10

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19	Chromatic serial multiphoton microscopy for high-content multiscale analysis of large brain volumes. , 2019, , .		0
20	Chromatic serial multiphoton microscopy for multicolor imaging of large brain volumes. , 2019, , .		0
21	Label-free THG imaging of bone tissue microstructure: effect of low gravity on the lacuno-canalicular network. , 2019, , .		0
22	Fast P-THG microscopy for the characterization of biomaterials. , 2019, , .		0
23	Multicolor Two-Photon Fluorescence Lifetimes Microscopy by Wavelenght Mixing for Efficient and Simultaneus NADH and FAD Imaging Reveals Metabolic Shifts Associated to Cellular Differentiation and Oxidative Stress in Living Tissues. Biophysical Journal, 2018, 114, 346a.	0.2	2
24	Neural Cell Segmentation in Large-Scale 3D Color Fluorescence Microscopy Images for Developemental Neuroscience. , 2018, , .		1
25	Snapshots of archaeal DNA replication and repair in living cells using super-resolution imaging. Nucleic Acids Research, 2018, 46, 10757-10770.	6.5	16
26	Dual-color deep-tissue three-photon microscopy with a multiband infrared laser. Light: Science and Applications, 2018, 7, 12.	7.7	91
27	Dual-color three-photon microscopy of neural tissue using a multiband MHz OPA. , 2018, , .		0
28	Multicolor Two-photon Imaging of Endogenous Fluorophores in Living Tissues by Wavelength Mixing. , 2018, , .		0
29	Dual-color Three-photon Microscopy for Deep Imaging of Neural Tissue. , 2018, , .		0
30	Metrology in nonlinear microscopy using harmonic generation nanoprobes (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (F		0
31	An Efficient Multicolor Two-Photon Imaging of Endogenous Fluorophores in Living Tissues by Wavelength Mixing. Biophysical Journal, 2017, 112, 186a.	0.2	2
32	All-fiber femtosecond laser providing 9 nJ, 50 MHz pulses at 1650 nm for three-photon microscopy. Journal of Optics (United Kingdom), 2017, 19, 065506.	1.0	36
33	Metrology of Multiphoton Microscopes Using Second Harmonic Generation Nanoprobes. Small, 2017, 13, 1701442.	5.2	16
34	Life-Long Neurogenic Activity of Individual Neural Stem Cells and Continuous Growth Establish an Outside-In Architecture in the Teleost Pallium. Current Biology, 2017, 27, 3288-3301.e3.	1.8	57
35	Label-free imaging of bone multiscale porosity and interfaces using third-harmonic generation microscopy. Scientific Reports, 2017, 7, 3419.	1.6	62
36	Multicolor two-photon imaging of endogenous fluorophores in living tissues by wavelength mixing. Scientific Reports, 2017, 7, 3792.	1.6	99

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37	Multiphoton Imaging of Developing Tissues: Multicolor and Light-sheet Approaches. , 2017, , .		0
38	Volumetric multicolor multiphoton microscopy for neuron connectivity and cell lineage analysis. , 2017, , .		0
39	MHz-repetition-rate ultrafast OPCPA system at 1700 nm for in-depth 3-photon microscopy of nervous tissue. , 2017, , .		0
40	Efficient second-harmonic imaging of collagen in histological slides using Bessel beam excitation. Scientific Reports, 2016, 6, 29863.	1.6	22
41	Three-photon microscopy with a monolithic all-fiber format laser emitting at 1650 nm. , 2016, , .		0
42	Whole-brain functional imaging with two-photon light-sheet microscopy. Nature Methods, 2015, 12, 379-380.	9.0	129
43	Multiphoton light-sheet microscopy using wavelength mixing: fast multicolor imaging of the beating Zebrafish heart with low photobleaching. , 2015, , .		0
44	Large-scale live imaging of adult neural stem cells in their endogenous niche. Development (Cambridge), 2015, 142, 3592-600.	1.2	51
45	Large-scale live imaging of adult neural stem cells in their endogenous niche. Journal of Cell Science, 2015, 128, e1.2-e1.2.	1.2	0
46	Mitigating Phototoxicity during Multiphoton Microscopy of Live Drosophila Embryos in the 1.0â€“1.2 Âµm Wavelength Range. PLoS ONE, 2014, 9, e104250.	1.1	59
47	Multicolor two-photon light-sheet microscopy. Nature Methods, 2014, 11, 600-601.	9.0	130
48	Multiplex Cell and Lineage Tracking with Combinatorial Labels. Neuron, 2014, 81, 505-520.	3.8	142
49	Non-invasive monitoring of cell metabolism and lipid production in 3D engineered human adipose tissues using label-free multiphoton microscopy. Biomaterials, 2013, 34, 8607-8616.	5.7	35
50	Probing Ordered Lipid Assemblies with Polarized Third-Harmonic-Generation Microscopy. Physical Review X, 2013, 3, .	2.8	20
51	Multiscale analysis of polarization-resolved third-harmonic generation microscopy from ordered lipid assemblies. , 2013, , .		0
52	Quantitative, Functional Biomarkers of Stem Cell Differentiation in 3D Using Multi-modal Non-linear Imaging with Endogenous Contrast. , 2013, , .		0
53	3D resolved mapping of optical aberrations in thick tissues. Biomedical Optics Express, 2012, 3, 1898.	1.5	37
54	Accuracy of correction in modal sensorless adaptive optics. Optics Express, 2012, 20, 2598.	1.7	106

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55	Third-harmonic generation microscopy with Bessel beams: a numerical study. Optics Express, 2012, 20, 24886.	1.7	18
56	Calibration of an adaptive microscope using phase diversity. , 2012, , .		0
57	Correction precision in image-based adaptive optics for nonlinear microscopy. Proceedings of SPIE, 2012, , .	0.8	0
58	Assessing correction accuracy in image-based adaptive optics. , 2012, , .		5
59	Methodology for Reconstructing Early Zebrafish Development From In Vivo Multiphoton Microscopy. IEEE Transactions on Image Processing, 2012, 21, 2335-2340.	6.0	15
60	Multicolor two-photon tissue imaging by wavelength mixing. Nature Methods, 2012, 9, 815-818.	9.0	165
61	Advances in multiphoton microscopy for imaging embryos. Current Opinion in Genetics and Development, 2011, 21, 538-548.	1.5	54
62	Combined third-harmonic generation and four-wave mixing microscopy of tissues and embryos. Biomedical Optics Express, 2011, 2, 2837.	1.5	44
63	Simple characterisation of a deformable mirror inside a high numerical aperture microscope using phase diversity. Journal of Microscopy, 2011, 244, 136-143.	0.8	10
64	Processing pipeline for digitalizing the lineage tree of early zebrafish embryogenesis from multiharmonic imaging. , 2011, , .		1
65	Nonlinear microscopy of tissues and embryo morphogenesis. , 2011, , .		0
66	Multimodal Nonlinear Imaging of the Human Cornea. , 2010, 51, 2459.		143
67	Multiphoton microscopy of engineered dermal substitutes: assessment of 3-D collagen matrix remodeling induced by fibroblast contraction. Journal of Biomedical Optics, 2010, 15, 1.	1.4	31
68	Harmonic microscopy of isotropic and anisotropic microstructure of the human cornea. Optics Express, 2010, 18, 5028.	1.7	60
69	Dispersion-based pulse shaping for multiplexed two-photon fluorescence microscopy. Optics Letters, 2010, 35, 3444.	1.7	20
70	Cell Lineage Reconstruction of Early Zebrafish Embryos Using Label-Free Nonlinear Microscopy. Science, 2010, 329, 967-971.	6.0	327
71	LIQUID LENS APPROACHES FOR SIMULTANEOUS STANDARD AND EXTENDED DEPTH OF FIELD IMAGING. , 2010, , .		0
72	Two-photon microscopy of biological organisms with shaped broadband pulses. , 2010, , .		0

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73	Two-photon microscopy with simultaneous standard and extended depth of field using a tunable acoustic gradient-index lens. Optics Letters, 2009, 34, 1684.	1.7	62
74	Dynamic aberration correction for multiharmonic microscopy. Optics Letters, 2009, 34, 3145.	1.7	80
75	Multiplexed two-photon microscopy of dynamic biological samples with shaped broadband pulses. Optics Express, 2009, 17, 12741.	1.7	24
76	Third-harmonic generation microscopy with focus-engineered beams: a numerical study. Optics Express, 2008, 16, 14703.	1.7	43
77	Tissue Deformation Modulates Twist Expression to Determine Anterior Midgut Differentiation in Drosophila Embryos. Developmental Cell, 2008, 15, 470-477.	3.1	306
78	Mechanical factors activateÃŸâ€cateninâ€dependent oncogene expression in APC^{1638N/+}mouse colon. HFSP Journal, 2008, 2, 286-294.	2.5	74
79	Contrast mechanisms and signal epidetection in THG microscopy of scattering tissues. , 2008, , .		0
80	Nonlinear microscopy of collagen fibers. , 2007, , .		0
81	Second harmonic imaging and scoring of collagen in fibrotic tissues. Optics Express, 2007, 15, 4054.	1.7	268
82	Signal epidetection in third-harmonic generation microscopy of turbid media. Optics Express, 2007, 15, 8913.	1.7	64
83	Quantitative Characterization of Biological Liquids for Third-Harmonic Generation Microscopy. Biophysical Journal, 2007, 92, 603-612.	0.2	72
84	Three-dimensional investigation and scoring of extracellular matrix remodeling during lung fibrosis using multiphoton microscopy. Microscopy Research and Technique, 2007, 70, 162-170.	1.2	126
85	Optical in situ size determination of single lanthanide-ion doped oxide nanoparticles. Applied Physics Letters, 2006, 89, 253103.	1.5	15
86	Fourier-transform coherent anti-Stokes Raman scattering microscopy. Optics Letters, 2006, 31, 480.	1.7	124
87	Use of coherent control for selective two-photon fluorescence microscopy in live organisms. Optics Express, 2006, 14, 759.	1.7	120
88	An all-optical approach to modulate and quantitatively analyse embryo morphogenetic movements by using ultrashort laser pulses. , 2006, , .		0
89	Structure sensitivity and sources of contrast in third-harmonic generation (THG) microscopy of cells and tissues. , 2006, 6089, 229.		0
90	Spectroscopic analysis of skin intrinsic signals for multiphoton microscopy. , 2006, , .		0

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91	Imaging lipid bodies in cells and tissues using third-harmonic generation microscopy. Nature Methods, 2006, 3, 47-53.	9.0	522
92	Micrometer scaleEx Vivo multiphoton imaging of unstained arterial wall structure. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2006, 69A, 20-26.	1.1	83
93	Multiphoton microscopy using intrinsic signals for pharmacological studies in unstained cardiac and vascular tissue. , 2005, , .		1
94	Functionalized luminescent oxide nanoparticles for sodium channel imaging at the single molecule level. , 2005, 5705, 192.		2
95	In vivo analysis of Drosophila embryo developmental dynamics by femtosecond pulse-induced ablation and multimodal nonlinear microscopy. , 2005, 5700, 256.		0
96	Femtosecond pulse-induced microprocessing of live Drosophila embryos. Medical Laser Application: International Journal for Laser Treatment and Research, 2005, 20, 207-216.	0.4	18
97	In vivo modulation of morphogenetic movements in Drosophila embryos with femtosecond laser pulses. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1047-1052.	3.3	243
98	Structure sensitivity in third-harmonic generation microscopy. Optics Letters, 2005, 30, 2134.	1.7	63
99	Emission properties and applications of nanostructured luminescent oxide nanoparticles. Progress in Solid State Chemistry, 2005, 33, 99-106.	3.9	43
100	Functionalized Fluorescent Oxide Nanoparticles:â€‰ Artificial Toxins for Sodium Channel Targeting and Imaging at the Single-Molecule Level. Nano Letters, 2004, 4, 2079-2083.	4.5	181
101	Second-harmonic microscopy of unstained living cardiac myocytes:â€ƒmeasurements of sarcomere length with 20-nm accuracy. Optics Letters, 2004, 29, 2031.	1.7	100
102	Velocimetric third-harmonic generation microscopy:â€ƒmicrometer-scale quantification of morphogenetic movements in unstained embryos. Optics Letters, 2004, 29, 2881.	1.7	52
103	In vivo microdissection and live embryo imaging by two-photon microscopy to study Drosophila melanogaster early development. , 2004, 5463, 13.		1
104	Chiral chromophores for second harmonic microscopy. , 2003, 5139, 121.		0
105	High-resolution full-field optical coherence tomography with a Linnik microscope. Applied Optics, 2002, 41, 805.	2.1	457
106	Epifluorescence collection in two-photon microscopy. Applied Optics, 2002, 41, 5376.	2.1	59
107	Microscopy with femtosecond lasers. European Physical Journal Special Topics, 2002, 12, 53-57.	0.2	1
108	<title>Strategies for improving depth-penetration of two-photon imaging in vivo</title>. , 2001, , .		0

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109	Two-photon microscopy in brain tissue: parameters influencing the imaging depth. Journal of Neuroscience Methods, 2001, 111, 29-37.	1.3	399
110	Ultra-deep two-photon fluorescence excitation in turbid media. Optics Communications, 2001, 188, 25-29.	1.0	133
111	Odor-evoked calcium signals in dendrites of rat mitral cells. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 1230-1234.	3.3	138
112	Odor-evoked calcium signals in dendrites of rat mitral cells. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 1230-4.	3.3	72
113	<title>Optical coherence microscopy for high-resolution biological imaging</title>. , 2000, 4160, 24.		3
114	Combined scanning optical coherence and two-photon-excited fluorescence microscopy. Optics Letters, 1999, 24, 969.	1.7	145
115	<title>Imaging through scattering media using cameras and parallel processing</title>. , 1999, , .		0
116	<title>High-resolution real-time full-field interference microscopy</title>. , 1999, 3605, 13.		0
117	<title>3D imaging in biological tissues by tagging photon paths with ultrasound</title>. , 1999, , .		0
118	Full-field optical coherence microscopy. Optics Letters, 1998, 23, 244.	1.7	433
119	<title>Optical coherence microscopy for the in-depth study of biological structures: system based on a parallel detection scheme</title>. , 1998, , .		0
120	<title>Low-coherence in-depth microscopy for biological tissue imaging: design of a real-time control system</title>. , 1998, 3194, 198.		0