Emmanuel Beaurepaire

List of Publications by Citations

83 papers	5,300 citations	40 h-index	72 g-index
132 ext. papers	6,451 ext. citations	7.5 avg, IF	5.26 L-index

#	Paper	IF	Citations
83	Imaging lipid bodies in cells and tissues using third-harmonic generation microscopy. *Nature Methods*, **2006**, 3, 47-53	21.6	410
82	High-resolution full-field optical coherence tomography with a Linnik microscope. *Applied Optics*, **2002**, 41, 805-12	1.7	329
81	Two-photon microscopy in brain tissue: parameters influencing the imaging depth. *Journal of Neuroscience Methods*, **2001**, 111, 29-37	3	308
80	Full-field optical coherence microscopy. *Optics Letters*, **1998**, 23, 244-6	3	290
79	Cell lineage reconstruction of early zebrafish embryos using label-free nonlinear microscopy. *Science*, **2010**, 329, 967-71	33.3	271
78	Tissue deformation modulates twist expression to determine anterior midgut differentiation in Drosophila embryos. *Developmental Cell*, **2008**, 15, 470-477	10.2	250
77	Second harmonic imaging and scoring of collagen in fibrotic tissues. *Optics Express*, **2007**, 15, 4054-65	3.3	217
76	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, 1047-52	11.5	201
75	Functionalized Fluorescent Oxide Nanoparticles: Artificial Toxins for Sodium Channel Targeting and Imaging at the Single-Molecule Level. *Nano Letters*, **2004**, 4, 2079-2083	11.5	175
74	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	11.5	128
73	Multicolor two-photon tissue imaging by wavelength mixing. *Nature Methods*, **2012**, 9, 815-8	21.6	122
72	Combined scanning optical coherence and two-photon-excited fluorescence microscopy. *Optics Letters*, **1999**, 24, 969-71	3	121
71	Multiplex cell and lineage tracking with combinatorial labels. *Neuron*, **2014**, 81, 505-20	13.9	112
70	Three-dimensional investigation and scoring of extracellular matrix remodeling during lung fibrosis using multiphoton microscopy. *Microscopy Research and Technique*, **2007**, 70, 162-70	2.8	111
69	Multimodal nonlinear imaging of the human cornea **2010**, 51, 2459-65		103
68	Fourier-transform coherent anti-Stokes Raman scattering microscopy. *Optics Letters*, **2006**, 31, 480-2	3	103
67	Ultra-deep two-photon fluorescence excitation in turbid media. *Optics Communications*, **2001**, 188, 25-29	2	101

66	Use of coherent control for selective two-photon fluorescence microscopy in live organisms. *Optics Express*, **2006**, 14, 759-66	3.3	97
65	Whole-brain functional imaging with two-photon light-sheet microscopy. *Nature Methods*, **2015**, 12, 379-80	21.6	90
64	Multicolor two-photon light-sheet microscopy. *Nature Methods*, **2014**, 11, 600-1	21.6	87
63	Second-harmonic microscopy of unstained living cardiac myocytes: measurements of sarcomere length with 20-nm accuracy. *Optics Letters*, **2004**, 29, 2031-3	3	80
62	Micrometer scale ex vivo multiphoton imaging of unstained arterial wall structure. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2006**, 69, 20-6	4.6	71
61	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	11.5	71
60	Multicolor two-photon imaging of endogenous fluorophores in living tissues by wavelength mixing. *Scientific Reports*, **2017**, 7, 3792	4.9	69
59	Accuracy of correction in modal sensorless adaptive optics. *Optics Express*, **2012**, 20, 2598-612	3.3	68
58	Mechanical factors activate beta-catenin-dependent oncogene expression in APC mouse colon. *HFSP Journal*, **2008**, 2, 286-94		68
57	Quantitative characterization of biological liquids for third-harmonic generation microscopy. *Biophysical Journal*, **2007**, 92, 603-12	2.9	60
56	Structure sensitivity in third-harmonic generation microscopy. *Optics Letters*, **2005**, 30, 2134-6	3	52
55	Dual-color deep-tissue three-photon microscopy with a multiband infrared laser. *Light: Science and Applications*, **2018**, 7, 12	16.7	52
54	Epifluorescence collection in two-photon microscopy. *Applied Optics*, **2002**, 41, 5376-82	1.7	51
53	Multicolor multiscale brain imaging with chromatic multiphoton serial microscopy. *Nature Communications*, **2019**, 10, 1662	17.4	49
52	Two-photon microscopy with simultaneous standard and extended depth of field using a tunable acoustic gradient-index lens. *Optics Letters*, **2009**, 34, 1684-6	3	45
51	Dynamic aberration correction for multiharmonic microscopy. *Optics Letters*, **2009**, 34, 3145-7	3	45
50	Large-scale live imaging of adult neural stem cells in their endogenous niche. *Development (Cambridge)*, **2015**, 142, 3592-600	6.6	44
49	Signal epidetection in third-harmonic generation microscopy of turbid media. *Optics Express*, **2007**, 15, 8913-24	3.3	44

48	Advances in multiphoton microscopy for imaging embryos. *Current Opinion in Genetics and Development*, **2011**, 21, 538-48	4.9	43
47	Mitigating phototoxicity during multiphoton microscopy of live Drosophila embryos in the 1.0-1.2 μm wavelength range. *PLoS ONE*, **2014**, 9, e104250	3.7	42
46	Velocimetric third-harmonic generation microscopy: micrometer-scale quantification of morphogenetic movements in unstained embryos. *Optics Letters*, **2004**, 29, 2881-3	3	42
45	Harmonic microscopy of isotropic and anisotropic microstructure of the human cornea. *Optics Express*, **2010**, 18, 5028-40	3.3	41
44	Emission properties and applications of nanostructured luminescent oxide nanoparticles. *Progress in Solid State Chemistry*, **2005**, 33, 99-106	8	41
43	Cortical astrocytes develop in a plastic manner at both clonal and cellular levels. *Nature Communications*, **2019**, 10, 4884	17.4	38
42	Label-free imaging of bone multiscale porosity and interfaces using third-harmonic generation microscopy. *Scientific Reports*, **2017**, 7, 3419	4.9	37
41	Third-harmonic generation microscopy with focus-engineered beams: a numerical study. *Optics Express*, **2008**, 16, 14703-15	3.3	37
40	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	6.3	34
39	3D resolved mapping of optical aberrations in thick tissues. *Biomedical Optics Express*, **2012**, 3, 1898-913	3.5	34
38	An actin-based viscoplastic lock ensures progressive body-axis elongation. *Nature*, **2019**, 573, 266-270	50.4	31
37	Multiphoton microscopy of engineered dermal substitutes: assessment of 3-D collagen matrix remodeling induced by fibroblast contraction. *Journal of Biomedical Optics*, **2010**, 15, 056018	3.5	27
36	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	1.7	26
35	Combined third-harmonic generation and four-wave mixing microscopy of tissues and embryos. *Biomedical Optics Express*, **2011**, 2, 2837-49	3.5	23
34	Multiplexed two-photon microscopy of dynamic biological samples with shaped broadband pulses. *Optics Express*, **2009**, 17, 12741-52	3.3	23
33	Non-invasive monitoring of cell metabolism and lipid production in 3D engineered human adipose tissues using label-free multiphoton microscopy. *Biomaterials*, **2013**, 34, 8607-16	15.6	21
32	Efficient second-harmonic imaging of collagen in histological slides using Bessel beam excitation. *Scientific Reports*, **2016**, 6, 29863	4.9	20
31	Probing Ordered Lipid Assemblies with Polarized Third-Harmonic-Generation Microscopy. *Physical Review X*, **2013**, 3,	9.1	15

30	Optical in situ size determination of single lanthanide-ion doped oxide nanoparticles. *Applied Physics Letters*, **2006**, 89, 253103	3.4	15
29	Fast Imaging of SHG Nanoprobes with Multiphoton Light-Sheet Microscopy. *ACS Photonics*, **2020**, 7, 1036-1049	6.5	14
28	Dispersion-based pulse shaping for multiplexed two-photon fluorescence microscopy. *Optics Letters*, **2010**, 35, 3444-6	3	14
27	Third-harmonic generation microscopy with Bessel beams: a numerical study. *Optics Express*, **2012**, 20, 24886-902	3.3	14
26	Femtosecond pulse-induced microprocessing of live Drosophila embryos. *Medical Laser Application: International Journal for Laser Treatment and Research*, **2005**, 20, 207-216		14
25	Methodology for reconstructing early zebrafish development from in vivo multiphoton microscopy. *IEEE Transactions on Image Processing*, **2012**, 21, 2335-40	8.7	13
24	Snapshots of archaeal DNA replication and repair in living cells using super-resolution imaging. *Nucleic Acids Research*, **2018**, 46, 10757-10770	20.1	12
23	High-speed polarization-resolved third-harmonic microscopy. *Optica*, **2019**, 6, 385	8.6	11
22	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	18	10
21	Fast multiphoton light-sheet microscopy with optimal pulse frequency. *Biomedical Optics Express*, **2020**, 11, 6012-6026	3.5	9
20	Metrology of Multiphoton Microscopes Using Second Harmonic Generation Nanoprobes. *Small*, **2017**, 13, 1701442	11	8
19	Simple characterisation of a deformable mirror inside a high numerical aperture microscope using phase diversity. *Journal of Microscopy*, **2011**, 244, 136-43	1.9	8
18	Intravital deep-tumor single-beam 3-photon, 4-photon, and harmonic microscopy.. *ELife*, **2022**, 11,	8.9	6
17	Assessing correction accuracy in image-based adaptive optics **2012**,		5
16	Simultaneous NAD(P)H and FAD fluorescence lifetime microscopy of long UVA-induced metabolic stress in reconstructed human skin. *Scientific Reports*, **2021**, 11, 22171	4.9	5
15	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	3.7	5
14	The TPLATE complex mediates membrane bending during plant clathrin-mediated endocytosis.. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
13	An Efficient Multicolor Two-Photon Imaging of Endogenous Fluorophores in Living Tissues by Wavelength Mixing. *Biophysical Journal*, **2017**, 112, 186a	2.9	2

12	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	2.9	2
11	Optical coherence microscopy for high-resolution biological imaging **2000**, 4160, 24		2
10	nAdder: A scale-space approach for the 3D analysis of neuronal traces		2
9	In vivo microdissection and live embryo imaging by two-photon microscopy to study Drosophila melanogaster early development **2004**, 5463, 13		1
8	Multiphoton microscopy using intrinsic signals for pharmacological studies in unstained cardiac and vascular tissue **2005**,		1
7	In Utero Electroporation of Multiaddressable Genome-Integrating Color (MAGIC) Markers to Individualize Cortical Mouse Astrocytes. *Journal of Visualized Experiments*, **2020**,	1.6	1
6	Modeling nonlinear microscopy near index-mismatched interfaces. *Optica*, **2021**, 8, 944	8.6	1
5	Functionalized luminescent oxide nanoparticles for sodium channel imaging at the single molecule level **2005**, 5705, 192		0
4	Structure sensitivity and sources of contrast in third-harmonic generation (THG) microscopy of cells and tissues **2006**, 6089, 229		
3	In vivo analysis of Drosophila embryo developmental dynamics by femtosecond pulse-induced ablation and multimodal nonlinear microscopy **2005**, 5700, 256		
2	High-resolution real-time full-field interference microscopy **1999**, 3605, 13		
1	Large-scale live imaging of adult neural stem cells in their endogenous niche. *Journal of Cell Science* , **2015**, 128, e1.2-e1.2	5.3	