Giuseppe Vicidomini

List of Publications by Year
in descending order

104	4,206	147726	123376
papers	citations	31 h-index	61 g-index

114	114	114	4230
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Confocal-based fluorescence fluctuation spectroscopy with a SPAD array detector. Light: Science and Applications, 2021, 10, 31.	7.7	37
2	PRRT2 modulates presynaptic Ca2+ influx by interacting with P/Q-type channels. Cell Reports, 2021, 35, 109248.	2.9	15
3	Chromatin investigation in the nucleus using a phasor approach to structured illumination microscopy. Biophysical Journal, 2021, 120, 2566-2576.	0.2	7
4	Pixel reassignment in image scanning microscopy with a doughnut beam: example of maximum likelihood restoration. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2021, 38, 1075.	0.8	4
5	Cooled SPAD array detector for low light-dose fluorescence laser scanning microscopy. Biophysical Reports, 2021, 1, 100025.	0.7	7
6	Evaluation of sted super-resolution image quality by image correlation spectroscopy (QuICS). Scientific Reports, 2021, 11, 20782.	1.6	7
7	Fluorescence Laser-Scanning Microscopy with SPAD Array Detector: Towards Single-Photon Microscopy. , 2021, , .		0
8	Super-Resolution Imaging through Laser-Scanning Microscopy. , 2021, , 1-28.		0
9	Time-Resolved STED Microscopy with Single-Photon Detector Array: a Perfect Synergy. , 2021, , .		0
10	Linewidth and writing resolution. , 2020, , 351-384.		0
11	Improving SPLIT-STED super-resolution imaging with tunable depletion and excitation power. Journal Physics D: Applied Physics, 2020, 53, 234003.	1.3	13
12	Two-photon image-scanning microscopy with SPAD array and blind image reconstruction. Biomedical Optics Express, 2020, 11, 2905.	1.5	33
13	Pixel reassignment in image scanning microscopy: a re-evaluation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 154.	0.8	31
14	Image scanning microscopy with multiphoton excitation or Bessel beam illumination. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 1639.	0.8	11
15	SPAD-based asynchronous-readout array detectors for image-scanning microscopy. Optica, 2020, 7, 755.	4.8	37
16	Fourier ring correlation simplifies image restoration in fluorescence microscopy. Nature Communications, 2019, 10, 3103.	5.8	94
17	Photon-separation to enhance the spatial resolution of pulsed STED microscopy. Nanoscale, 2019, 11, 1754-1761.	2.8	38
18	Smart scanning for low-illumination and fast RESOLFT nanoscopy in vivo. Nature Communications, 2019, 10, 556.	5.8	58

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19	Measuring Mobility in Chromatin by Intensity-Sorted FCS. Biophysical Journal, 2019, 116, 987-999.	0.2	37
20	Super-Resolution Fluorescence Microscopy. , 2019, , 1-12.		0
21	A robust and versatile platform for image scanning microscopy enabling super-resolution FLIM. Nature Methods, 2019, 16, 175-178.	9.0	132
22	Fluorescence Microscopy. Springer Handbooks, 2019, , 1039-1088.	0.3	9
23	Efficient two-photon excitation stimulated emission depletion nanoscope exploiting spatiotemporal information. Neurophotonics, 2019, 6, 1.	1.7	12
24	The SPLIT approach for enhancing the spatial resolution in pulsed STED microscopy with FastFLIM and phasor plots. , 2019, , .		1
25	Local raster image correlation spectroscopy generates high-resolution intracellular diffusion maps. Communications Biology, 2018, 1, 10.	2.0	37
26	STED super-resolved microscopy. Nature Methods, 2018, 15, 173-182.	9.0	452
27	5 STED microscopy: exploring fluorescence lifetime gradients for super-resolution at reduced illumination intensities. , 2018, , 85-102.		2
28	A Liquid Tunable Microscope as a New Paradigm in Optical Microscopy to Paint 4D Chromatin Organisation in the Cell Nucleus. Biophysical Journal, 2018, 114, 347a.	0.2	1
29	Machine learning approach for single molecule localisation microscopy. Biomedical Optics Express, 2018, 9, 1680.	1.5	8
30	Evaluating image resolution in stimulated emission depletion microscopy. Optica, 2018, 5, 32.	4.8	84
31	Image scanning microscopy (ISM) with a single photon avalanche diode (SPAD) array detector. , 2018, , .		1
32	Improving multiphoton STED nanoscopy with separation of photons by LIfetime Tuning (SPLIT). , 2018, , .		1
33	A novel pulsed STED microscopy method using FastFLIM and the phasor plots. Proceedings of SPIE, 2017, , .	0.8	4
34	Removal of anti-Stokes emission background in STED microscopy by FPGA-based synchronous detection. Review of Scientific Instruments, 2017, 88, 053701.	0.6	25
35	Improving the Spatial Resolution in Direct Laser Writing Lithography by Using a Reversible Cationic Photoinitiator. Journal of Physical Chemistry C, 2017, 121, 16970-16977.	1.5	8
36	Measurement of nanoscale three-dimensional diffusion in the interior of living cells by STED-FCS. Nature Communications, 2017, 8, 65.	5.8	68

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37	Image formation in image scanning microscopy, including the case of two-photon excitation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1339.	0.8	39
38	Interpretation of the optical transfer function: Significance for image scanning microscopy. Optics Express, 2016, 24, 27280.	1.7	28
39	Characterization of nanostructures fabricated with two-beam DLW lithography using STED microscopy. Optical Materials Express, 2016, 6, 3169.	1.6	16
40	Gated-sted microscopy with subnanosecond pulsed fiber laser for reducing photobleaching. Microscopy Research and Technique, 2016, 79, 785-791.	1.2	27
41	Two-Photon Excitation STED Microscopy with Time-Gated Detection. Scientific Reports, 2016, 6, 19419.	1.6	27
42	Learning-based approach to boost detection rate and localisation accuracy in single molecule localisation microscopy. , 2016, , .		0
43	Role of the Pico-Nano-Second Temporal Dimension in STED Microscopy. Springer Series on Fluorescence, 2016, , 311-329.	0.8	2
44	Microscopy using source and detector arrays. , 2016, , .		0
45	Linewidth and Writing Resolution. , 2016, , 190-220.		5
46	Image scanning microscopy with a quadrant detector. Optics Letters, 2015, 40, 5355.	1.7	49
47	Simultaneous multiplane imaging for 3D confocal microscopy using high-speed *z*-scanning multiplexing. , 2015, , .		0
48	Selective fluorescence functionalization of dye-doped polymerized structures fabricated by direct laser writing (DLW) lithography. Nanoscale, 2015, 7, 20164-20170.	2.8	5
49	The 2015 super-resolution microscopy roadmap. Journal Physics D: Applied Physics, 2015, 48, 443001.	1.3	291
50	Background-Free Super-Resolution Microscopy of Subcellular Structures by Lifetime Tuning and Photons Separation. Biophysical Journal, 2015, 108, 359a.	0.2	0
51	STED-FLCS: An Advanced Tool to Reveal Spatiotemporal Heterogeneity of Molecular Membrane Dynamics. Nano Letters, 2015, 15, 5912-5918.	4.5	71
52	The importance of the photon arrival times in STED microscopy. Proceedings of SPIE, 2015, , .	0.8	0
53	Encoding and decoding spatio-temporal information for super-resolution microscopy. Nature Communications, 2015, 6, 6701.	5.8	95
54	STED nanoscopy: a glimpse into the future. Cell and Tissue Research, 2015, 360, 143-150.	1.5	64

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55	Gated STED microscopy with time-gated single-photon avalanche diode. Biomedical Optics Express, 2015, 6, 2258.	1.5	26
56	Î»/20 axial control in 25D polymerized structures fabricated with DLW lithography. Optics Express, 2015, 23, 24850.	1.7	9
57	Influence of laser intensity noise on gated CW-STED microscopy. Laser Physics Letters, 2014, 11, 095603.	0.6	14
58	Multi-images deconvolution improves signal-to-noise ratio on gated stimulated emission depletion microscopy. Applied Physics Letters, 2014, 105, 234106.	1.5	43
59	Simultaneous multiplane confocal microscopy using acoustic tunable lenses. Optics Express, 2014, 22, 19293.	1.7	93
60	Gated CW-STED microscopy: A versatile tool for biological nanometer scale investigation. Methods, 2014, 66, 124-130.	1.9	60
61	A new filtering technique for removing antiâ€Stokes emission background in gated CWâ€STED microscopy. Journal of Biophotonics, 2014, 7, 376-380.	1.1	36
62	Fluorescence microscopy in the spotlight. Microscopy Research and Technique, 2014, 77, 479-482.	1.2	10
63	Synthesis of highly luminescent wurtzite CdSe/CdS giant-shell nanocrystals using a fast continuous injection route. Journal of Materials Chemistry C, 2014, 2, 3439.	2.7	90
64	The Importance of Photon Arrival Times in STED Microscopy. Springer Series on Fluorescence, 2014, , 283-301.	0.8	2
65	Super-Resolution Fluorescence Optical Microscopy: Targeted and Stochastic Read-Out Approaches. Advances in Atom and Single Molecule Machines, 2014, , 27-43.	0.0	1
66	STED Microscope Optimization: Neuroscience Applications. Biophysical Journal, 2013, 104, 670a.	0.2	0
67	STED Microscopy with Time-Gated Detection:Benefits and Limitations. Biophysical Journal, 2013, 104, 667a-668a.	0.2	1
68	High Data Output Method for 3-D Correlative Light-Electron Microscopy Using Ultrathin Cryosections. , 2013, 950, 417-437.		8
69	Stimulated Emission Depletion (STED) Microscopy. , 2013, , 2470-2475.		1
70	Towards real-time image deconvolution: application to confocal and STED microscopy. Scientific Reports, 2013, 3, 2523.	1.6	65
71	STED Nanoscopy with Time-Gated Detection: Theoretical and Experimental Aspects. PLoS ONE, 2013, 8, e54421.	1.1	134
72	Fluorescence Three-Dimensional Optical Imaging. , 2013, , 824-826.		1

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73	STED with wavelengths closer to the emission maximum. Optics Express, 2012, 20, 5225.	1.7	91
74	Single-wavelength two-photon excitationâ€“stimulated emission depletion (SW2PE-STED) superresolution imaging. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6390-6393.	3.3	84
75	Strategies to maximize the performance of a STED microscope. Optics Express, 2012, 20, 7362.	1.7	113
76	Optimizing Parameters for Wll STED Imaging. Biophysical Journal, 2012, 102, 725a.	0.2	1
77	3D HDO-CLEM. Methods in Cell Biology, 2012, 111, 95-115.	0.5	12
78	Simultaneous multi-lifetime multi-color STED imaging for colocalization analyses. Optics Express, 2011, 19, 3130.	1.7	204
79	Sharper low-power STED nanoscopy by time gating. Nature Methods, 2011, 8, 571-573.	9.0	396
80	A novel approach for correlative light electron microscopy analysis. Microscopy Research and Technique, 2010, 73, 215-224.	1.2	29
81	Automatic deconvolution in 4Pi-microscopy with variable phase. Optics Express, 2010, 18, 10154.	1.7	23
82	Application of the splitâ€gradient method to 3D image deconvolution in fluorescence microscopy. Journal of Microscopy, 2009, 234, 47-61.	0.8	28
83	Automatic deconvolution of 4Pi-microscopy data with arbitrary phase. Optics Letters, 2009, 34, 3583.	1.7	10
84	Annular pupil filter under shot-noise condition for linear and non linear microscopy. Optics Express, 2009, 17, 6867.	1.7	7
85	Image deblurring with Poisson data: from cells to galaxies. Inverse Problems, 2009, 25, 123006.	1.0	237
86	High Data Output and Automated 3D Correlative Lightâ€“Electron Microscopy Method. Traffic, 2008, 9, 1828-1838.	1.3	48
87	Image reconstruction for multiphoton fluorescence microscopy. Applied Physics Letters, 2008, 92, .	1.5	31
88	Studying the illumination puzzle towards an isotropic increase of optical resolution. , 2008, , .		1
89	Markov random field aided Bayesian approach for image reconstruction in confocal microscopy. Journal of Applied Physics, 2007, 102, .	1.1	38
90	Soft computing approach to confocal and two-photon excitation microscopy. , 2007, , .		0

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91	Role of three-dimensional bleach distribution in confocal and two-photon fluorescence recovery after photobleaching experiments. Applied Optics, 2007, 46, 7401.	2.1	36
92	Two-Photon Excitation Fluorescence Microscopy. , 2007, , 751-789.		6
93	FRET measurements on fuzzy fluorescent nanostructures. Microscopy Research and Technique, 2007, 70, 452-458.	1.2	7
94	Evidence for ciliary pigment localization in colored ciliates and implications for their photosensory transduction chain: A confocal microscopy study. Microscopy Research and Technique, 2007, 70, 1028-1033.	1.2	4
95	Characterization of uniform ultrathin layer for z-response measurements in three-dimensional section fluorescence microscopy. Journal of Microscopy, 2007, 225, 88-95.	0.8	8
96	Multi-photon excitation microscopy. BioMedical Engineering OnLine, 2006, 5, 36.	1.3	132
97	Fuzzy logic and maximum a posteriori-based image restoration for confocal microscopy. Optics Letters, 2006, 31, 3582.	1.7	22
98	T2P-GFP: two-photon photoactivation of PA-GFP in the 720-840 nm spectral region.. , 2006, 6089, 175.		1
99	3D localized photoactivation of pa-GFP in living cells using two-photon interactions. , 2006, 2006, 389-91.		5
100	Image Formation in Fluorescence Microscopy. , 2005, , 371-393.		1
101	From Microscopy to Nanoscopy: How to Get and Read Optical Data at Single Molecule Level Using Confocal and Two-Photon Excitation Microscopy. , 2005, , 187-207.		0
102	Improvement in volume estimation from confocal sections after image deconvolution. Microscopy Research and Technique, 2004, 64, 151-155.	1.2	23
103	Three-dimensional microscopy migrates to the web with ?PowerUp Your Microscope?. Microscopy Research and Technique, 2004, 64, 196-203.	1.2	9
104	Polyelectrolytes, Polyelectrolyte Microcapsules and Nanospheres- Valuable tools for Microscope Refinement in Subresolution Range. Microscopy and Microanalysis, 2004, 10, 1288-1289.	0.2	0