

Bernd Rieger

List of Publications by Year in descending order

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Version: 2024-02-01

43
papers

3,722
citations

318942

23
h-index

325983

40
g-index

51
all docs

51
docs citations

51
times ranked

4587
citing authors

#	ARTICLE	IF	CITATIONS
1	Photon efficient orientation estimation using polarization modulation in single-molecule localization microscopy. <i>Biomedical Optics Express</i> , 2022, 13, 2835.	1.5	5
2	Joint registration of multiple point clouds for fast particle fusion in localization microscopy. <i>Bioinformatics</i> , 2022, 38, 3281-3287.	1.8	6
3	High-speed multicolor structured illumination microscopy using a hexagonal single mode fiber array. <i>Biomedical Optics Express</i> , 2021, 12, 1181.	1.5	16
4	3D particle averaging and detection of macromolecular symmetry in localization microscopy. <i>Nature Communications</i> , 2021, 12, 2847.	5.8	32
5	Detecting structural heterogeneity in single-molecule localization microscopy data. <i>Nature Communications</i> , 2021, 12, 3791.	5.8	14
6	Simultaneous orientation and 3D localization microscopy with a Vortex point spread function. <i>Nature Communications</i> , 2021, 12, 5934.	5.8	39
7	Polarized stimulated-emission depletion and dark-state lifetime at vacuum and cryogenic temperature conditions. <i>Physical Review A</i> , 2021, 104, .	1.0	0
8	Localization microscopy at doubled precision with patterned illumination. <i>Nature Methods</i> , 2020, 17, 59-63.	9.0	138
9	Super-resolution fight club: assessment of 2D and 3D single-molecule localization microscopy software. <i>Nature Methods</i> , 2019, 16, 387-395.	9.0	251
10	A Multichannel Cross-Modal Fusion Framework for Electron Tomography. <i>IEEE Transactions on Image Processing</i> , 2019, 28, 4206-4218.	6.0	4
11	Phasor based single-molecule localization microscopy in 3D (pSMLM-3D): An algorithm for MHz localization rates using standard CPUs. <i>Journal of Chemical Physics</i> , 2018, 148, 123311.	1.2	50
12	Photon Yield Enhancement of Red Fluorophores at Cryogenic Temperatures. <i>ChemPhysChem</i> , 2018, 19, 1774-1780.	1.0	27
13	Automatic correction of nonlinear damping effects in HAADF-STEM tomography for nanomaterials of discrete compositions. <i>Ultramicroscopy</i> , 2018, 184, 57-65.	0.8	8
14	No-Reference Weighting Factor Selection for Bimodal Tomography. , 2018, , .		1
15	Single-Molecule Switching: Fluorescence Polarization Control for On-Off Switching of Single Molecules at Cryogenic Temperatures (Small Methods 9/2018). <i>Small Methods</i> , 2018, 2, 1800044.	4.6	0
16	Impact of optical aberrations on axial position determination by photometry. <i>Nature Methods</i> , 2018, 15, 989-990.	9.0	13
17	Template-free 2D particle fusion in localization microscopy. <i>Nature Methods</i> , 2018, 15, 781-784.	9.0	63
18	Image Fusion of X-Ray and Electron Tomograms. , 2018, , .		1

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19	Fluorescence Polarization Control for On-Off Switching of Single Molecules at Cryogenic Temperatures. <i>Small Methods</i> , 2018, 2, 1700323.	4.6	6
20	Adaptive illumination reduces photobleaching in structured illumination microscopy. <i>Biomedical Optics Express</i> , 2016, 7, 4263.	1.5	25
21	Co-Orientation: Quantifying Simultaneous Co-Localization and Orientational Alignment of Filaments in Light Microscopy. <i>PLoS ONE</i> , 2015, 10, e0131756.	1.1	21
22	Quantitative Localization Microscopy: Effects of Photophysics and Labeling Stoichiometry. <i>PLoS ONE</i> , 2015, 10, e0127989.	1.1	50
23	Nuclear accessibility of β -actin mRNA is measured by 3D single-molecule real-time tracking. <i>Journal of Cell Biology</i> , 2015, 209, 609-619.	2.3	48
24	Resolution improvement by 3D particle averaging in localization microscopy. <i>Methods and Applications in Fluorescence</i> , 2015, 3, 014003.	1.1	56
25	Probability-based particle detection that enables threshold-free and robust in vivo single-molecule tracking. <i>Molecular Biology of the Cell</i> , 2015, 26, 4057-4062.	0.9	30
26	Fully automatic evaluation of the corneal endothelium from in vivo confocal microscopy. <i>BMC Medical Imaging</i> , 2015, 15, 13.	1.4	46
27	The Lateral and Axial Localization Uncertainty in Super-Resolution Light Microscopy. <i>ChemPhysChem</i> , 2014, 15, 664-670.	1.0	109
28	Quantifying resolution limiting factors in subtomogram averaged cryo-electron tomography using simulations. <i>Journal of Structural Biology</i> , 2014, 187, 103-111.	1.3	19
29	When to use the projection assumption and the weak-phase object approximation in phase contrast cryo-EM. <i>Ultramicroscopy</i> , 2014, 136, 61-66.	0.8	42
30	Image formation modeling in cryo-electron microscopy. <i>Journal of Structural Biology</i> , 2013, 183, 19-32.	1.3	90
31	Measuring image resolution in optical nanoscopy. <i>Nature Methods</i> , 2013, 10, 557-562.	9.0	650
32	Super-resolution imaging visualizes the eightfold symmetry of gp210 proteins around the nuclear pore complex and resolves the central channel with nanometer resolution. <i>Journal of Cell Science</i> , 2012, 125, 570-575.	1.2	285
33	Position and orientation estimation of fixed dipole emitters using an effective Hermite point spread function model. <i>Optics Express</i> , 2012, 20, 5896.	1.7	48
34	Fast, spatially varying CTF correction in TEM. <i>Ultramicroscopy</i> , 2012, 118, 26-34.	0.8	21
35	Precise and unbiased estimation of astigmatism and defocus in transmission electron microscopy. <i>Ultramicroscopy</i> , 2012, 116, 115-134.	0.8	22
36	A fast algorithm for computing and correcting the CTF for tilted, thick specimens in TEM. <i>Ultramicroscopy</i> , 2011, 111, 1029-1036.	0.8	37

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37	ERK Nuclear Translocation Is Dimerization-independent but Controlled by the Rate of Phosphorylation. <i>Journal of Biological Chemistry</i> , 2010, 285, 3092-3102.	1.6	92
38	Accuracy of the Gaussian Point Spread Function model in 2D localization microscopy. <i>Optics Express</i> , 2010, 18, 24461.	1.7	183
39	Fast, single-molecule localization that achieves theoretically minimum uncertainty. <i>Nature Methods</i> , 2010, 7, 373-375.	9.0	470
40	Reaching out for signals. <i>Journal of Cell Biology</i> , 2005, 170, 619-626.	2.3	220
41	The role of photon statistics in fluorescence anisotropy imaging. <i>IEEE Transactions on Image Processing</i> , 2005, 14, 1237-1245.	6.0	54
42	Superresolution by localization of quantum dots using blinking statistics. <i>Optics Express</i> , 2005, 13, 7052.	1.7	332
43	One- and two-photon photoactivation of a paGFP-fusion protein in live <i>Drosophila</i> embryos. <i>FEBS Letters</i> , 2005, 579, 325-330.	1.3	76