Jonas Ries

List of Publications by Citations

103 papers	5,645 citations	38 h-index	74 g-index
129 ext. papers	7,187 ext. citations	10.8 avg, IF	5.96 L-index

#	Paper	IF	Citations
103	A simple, versatile method for GFP-based super-resolution microscopy via nanobodies. *Nature Methods*, **2012**, 9, 582-4	21.6	423
102	Spatial regulators for bacterial cell division self-organize into surface waves in vitro. *Science*, **2008**, 320, 789-92	33.3	393
101	Plasma membranes are poised for activation of raft phase coalescence at physiological temperature. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 10005-10	11.5	301
100	Fgf8 morphogen gradient forms by a source-sink mechanism with freely diffusing molecules. *Nature*, **2009**, 461, 533-6	50.4	283
99	Efficient inhibition of the Alzheimer's disease beta-secretase by membrane targeting. *Science*, **2008**, 320, 520-3	33.3	225
98	Effects of ceramide on liquid-ordered domains investigated by simultaneous AFM and FCS. *Biophysical Journal*, **2006**, 90, 4500-8	2.9	206
97	MINFLUX nanoscopy delivers 3D multicolor nanometer resolution in cells. *Nature Methods*, **2020**, 17, 217-224	21.6	204
96	Bax assembly into rings and arcs in apoptotic mitochondria is linked to membrane pores. *EMBO Journal*, **2016**, 35, 389-401	13	187
95	Combined AFM and two-focus SFCS study of raft-exhibiting model membranes. *ChemPhysChem*, **2006**, 7, 2409-18	3.2	176
94	Fluorescence correlation spectroscopy. *BioEssays*, **2012**, 34, 361-8	4.1	172
93	Studying slow membrane dynamics with continuous wave scanning fluorescence correlation spectroscopy. *Biophysical Journal*, **2006**, 91, 1915-24	2.9	158
92	Binding-activated localization microscopy of DNA structures. *Nano Letters*, **2011**, 11, 4008-11	11.5	141
91	Accurate determination of membrane dynamics with line-scan FCS. *Biophysical Journal*, **2009**, 96, 1999-2008	2.9	136
90	Real-time 3D single-molecule localization using experimental point spread functions. *Nature Methods*, **2018**, 15, 367-369	21.6	133
89	Super-resolution fight club: assessment of 2D and 3D single-molecule localization microscopy software. *Nature Methods*, **2019**, 16, 387-395	21.6	123
88	Fluorescence correlation spectroscopy in membrane structure elucidation. *Biochimica Et Biophysica Acta - Biomembranes*, **2009**, 1788, 225-33	3.8	123
87	Modular scanning FCS quantifies receptor-ligand interactions in living multicellular organisms. *Nature Methods*, **2009**, 6, 643-5	21.6	114

86	Membrane promotes tBID interaction with BCL(XL). *Nature Structural and Molecular Biology*, **2009**, 16, 1178-85	17.6	106
85	Nuclear pores as versatile reference standards for quantitative superresolution microscopy. *Nature Methods*, **2019**, 16, 1045-1053	21.6	105
84	New concepts for fluorescence correlation spectroscopy on membranes. *Physical Chemistry Chemical Physics*, **2008**, 10, 3487-97	3.6	103
83	Systematic Nanoscale Analysis of Endocytosis Links Efficient Vesicle Formation to Patterned Actin Nucleation. *Cell*, **2018**, 174, 884-896.e17	56.2	99
82	A paired RNAi and RabGAP overexpression screen identifies Rab11 as a regulator of β-amyloid production. *Cell Reports*, **2013**, 5, 1536-51	10.6	84
81	Role of ceramide in membrane protein organization investigated by combined AFM and FCS. *Biochimica Et Biophysica Acta - Biomembranes*, **2008**, 1778, 1356-64	3.8	81
80	Visualizing the functional architecture of the endocytic machinery. *ELife*, **2015**, 4,	8.9	80
79	Quantum scissors: Teleportation of single-mode optical states by means of a nonlocal single photon. *Europhysics Letters*, **2003**, 64, 1-7	1.6	74
78	Molecular architecture of native fibronectin fibrils. *Nature Communications*, **2015**, 6, 7275	17.4	62
77	Experimental vacuum squeezing in rubidium vapor via self-rotation. *Physical Review A*, **2003**, 68,	2.6	62
76	Direct Visualization of Single Nuclear Pore Complex Proteins Using Genetically-Encoded Probes for DNA-PAINT. *Angewandte Chemie - International Edition*, **2019**, 58, 13004-13008	16.4	57
75	Site-Specific Labeling of Affimers for DNA-PAINT Microscopy. *Angewandte Chemie - International Edition*, **2018**, 57, 11060-11063	16.4	55
74	Superresolution imaging of amyloid fibrils with binding-activated probes. *ACS Chemical Neuroscience*, **2013**, 4, 1057-61	5.7	54
73	Acetylated tubulin is essential for touch sensation in mice. *ELife*, **2016**, 5,	8.9	51
72	3D superresolution microscopy by supercritical angle detection. *Optics Express*, **2014**, 22, 29081-91	3.3	49
71	Supercritical angle fluorescence correlation spectroscopy. *Biophysical Journal*, **2008**, 94, 221-9	2.9	48
70	Rho regulates membrane transport in the endocytic pathway to control plasma membrane specialization in oligodendroglial cells. *Journal of Neuroscience*, **2007**, 27, 3560-70	6.6	47
69	Efficient homogeneous illumination and optical sectioning for quantitative single-molecule localization microscopy. *Optics Express*, **2016**, 24, 28080-28090	3.3	47

68	Aurora-B kinase pathway controls the lateral to end-on conversion of kinetochore-microtubule attachments in human cells. *Nature Communications*, **2017**, 8, 150	17.4	46
67	Total internal reflection fluorescence correlation spectroscopy: effects of lateral diffusion and surface-generated fluorescence. *Biophysical Journal*, **2008**, 95, 390-9	2.9	42
66	Nanoscale subcellular architecture revealed by multicolor three-dimensional salvaged fluorescence imaging. *Nature Methods*, **2020**, 17, 225-231	21.6	41
65	A comprehensive framework for fluorescence cross-correlation spectroscopy. *New Journal of Physics*, **2010**, 12, 113009	2.9	35
64	Specific protein labeling with caged fluorophores for dual-color imaging and super-resolution microscopy in living cells. *Chemical Science*, **2017**, 8, 559-566	9.4	32
63	DNA damage regulates the mobility of Brca2 within the nucleoplasm of living cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 21937-42	11.5	32
62	A tessellation-based colocalization analysis approach for single-molecule localization microscopy. *Nature Communications*, **2019**, 10, 2379	17.4	31
61	The bacterial SMC complex displays two distinct modes of interaction with the chromosome. *Cell Reports*, **2013**, 3, 1483-92	10.6	31
60	Scanning FCS for the characterization of protein dynamics in live cells. *Methods in Enzymology*, **2010** , 472, 317-43	1.7	30
59	Optimizing imaging speed and excitation intensity for single-molecule localization microscopy. *Nature Methods*, **2020**, 17, 909-912	21.6	30
58	SMAP: a modular super-resolution microscopy analysis platform for SMLM data. *Nature Methods*, **2020**, 17, 870-872	21.6	30
57	Organotypic slice culture model demonstrates inter-neuronal spreading of alpha-synuclein aggregates. *Acta Neuropathologica Communications*, **2019**, 7, 213	7.3	28
56	Cxcl12 evolution--subfunctionalization of a ligand through altered interaction with the chemokine receptor. *Development (Cambridge)*, **2011**, 138, 2909-14	6.6	25
55	Detergent-activated BAX protein is a monomer. *Journal of Biological Chemistry*, **2009**, 284, 23935-46	5.4	23
54	Absolute Arrangement of Subunits in Cytoskeletal Septin Filaments in Cells Measured by Fluorescence Microscopy. *Nano Letters*, **2015**, 15, 3859-64	11.5	22
53	Identification of novel synaptonemal complex components in C. elegans. *Journal of Cell Biology*, **2020**, 219,	7.3	22
52	Tuning the "roadblock" effect in kinesin-based transport. *Nano Letters*, **2012**, 12, 3466-71	11.5	21
51	Quantitative Data Analysis in Single-Molecule Localization Microscopy. *Trends in Cell Biology*, **2020**, 30, 837-851	18.3	20

50	Photoactivation of silicon rhodamines via a light-induced protonation. *Nature Communications*, **2019**, 10, 4580	17.4	19
49	Automated suppression of sample-related artifacts in Fluorescence Correlation Spectroscopy. *Optics Express*, **2010**, 18, 11073-82	3.3	19
48	Tracking single serotonin transporter molecules at the endoplasmic reticulum and plasma membrane. *Biophysical Journal*, **2014**, 106, L33-5	2.9	18
47	Depth-dependent PSF calibration and aberration correction for 3D single-molecule localization. *Biomedical Optics Express*, **2019**, 10, 2708-2718	3.5	17
46	Systematic Tuning of Rhodamine Spirocyclization for Super-resolution Microscopy. *Journal of the American Chemical Society*, **2021**, 143, 14592-14600	16.4	16
45	Nanoscale invaginations of the nuclear envelope: Shedding new light on wormholes with elusive function. *Nucleus*, **2017**, 8, 506-514	3.9	15
44	A real-time compression library for microscopy images		15
43	Direct Visualization of Single Nuclear Pore Complex Proteins Using Genetically-Encoded Probes for DNA-PAINT. *Angewandte Chemie*, **2019**, 131, 13138-13142	3.6	13
42	Localization microscopy in yeast. *Methods in Cell Biology*, **2014**, 123, 253-71	1.8	13
41	Deep learning enables fast and dense single-molecule localization with high accuracy. *Nature Methods*, **2021**, 18, 1082-1090	21.6	13
40	Conformational distribution of surface-adsorbed fibronectin molecules explored by single molecule localization microscopy. *Biomaterials Science*, **2014**, 2, 883-892	7.4	12
39	Cost-efficient open source laser engine for microscopy. *Biomedical Optics Express*, **2020**, 11, 609-623	3.5	10
38	Ortsspezifische Funktionalisierung von Affimeren f□die DNA-PAINT-Mikroskopie. *Angewandte Chemie*, **2018**, 130, 11226-11230	3.6	10
37	The interplay between BAX and BAK tunes apoptotic pore growth to control mitochondrial-DNA-mediated inflammation.. *Molecular Cell*, **2022**,	17.6	9
36	Type-I myosins promote actin polymerization to drive membrane bending in endocytosis. *ELife*, **2019**, 8,	8.9	9
35	Super-Resolution Microscopy for Structural Cell Biology.. *Annual Review of Biophysics*, **2022**,	21.1	8
34	Direct supercritical angle localization microscopy for nanometer 3D superresolution. *Nature Communications*, **2021**, 12, 1180	17.4	8
33	Dual-Color and 3D Super-Resolution Microscopy of Multi-protein Assemblies. *Methods in Molecular Biology*, **2018**, 1764, 237-251	1.4	7

32	Site-Specifically-Labeled Antibodies for Super-Resolution Microscopy Reveal Linkage Errors. *ACS Nano*, **2021**,	16.7	7
31	Implementation of a 4Pi-SMS super-resolution microscope. *Nature Protocols*, **2021**, 16, 677-727	18.8	7
30	Three-dimensional superresolution fluorescence microscopy maps the variable molecular architecture of the nuclear pore complex. *Molecular Biology of the Cell*, **2021**, 32, 1523-1533	3.5	7
29	Topological data analysis quantifies biological nano-structure from single molecule localization microscopy. *Bioinformatics*, **2020**, 36, 1614-1621	7.2	6
28	Principles and Applications of Fluorescence Correlation Spectroscopy (FCS). *NATO Science for Peace and Security Series B: Physics and Biophysics*, **2011**, 63-85	0.2	6
27	How good are my data? Reference standards in superresolution microscopy. *Molecular Biology of the Cell*, **2020**, 31, 2093-2096	3.5	6
26	3D particle averaging and detection of macromolecular symmetry in localization microscopy. *Nature Communications*, **2021**, 12, 2847	17.4	6
25	DRP1 interacts directly with BAX to induce its activation and apoptosis.. *EMBO Journal*, **2022**, e108587	13	5
24	Deep learning enables fast and dense single-molecule localization with high accuracy		5
23	Systematic analysis of the molecular architecture of endocytosis reveals a nanoscale actin nucleation template that drives efficient vesicle formation		5
22	EMU: reconfigurable graphical user interfaces for Micro-Manager. *BMC Bioinformatics*, **2020**, 21, 456	3.6	5
21	Scanning fluorescence correlation spectroscopy on biomembranes. *Methods in Molecular Biology*, **2015**, 1232, 181-97	1.4	4
20	Super-resolution fight club: A broad assessment of 2D & 3D single-molecule localization microscopy software		4
19	Nuclear pores as versatile reference standards for quantitative superresolution microscopy		4
18	MINFLUX nanoscopy delivers multicolor nanometer 3D-resolution in (living) cells		4
17	How to measure slow diffusion in yeast cell membranes **2008**,		3
16	Accurate 4Pi single-molecule localization using an experimental PSF model. *Optics Letters*, **2020**, 45, 3765-3768	3	3
15	Scanning Fluorescence Correlation Spectroscopy for Quantification of the Dynamics and Interactions in Tube Organelles of Living Cells. *ChemPhysChem*, **2018**, 19, 3273	3.2	3

List of Publications

14	The yeast kinetochore - structural insights from optical microscopy. *Current Opinion in Chemical Biology*, **2014**, 20, 1-8	9.7	2
13	Topological data analysis quantifies biological nano-structure from single molecule localization microscopy		2
12	Type-I myosins promote actin polymerization to drive membrane bending in endocytosis		2
11	ChromoTrace: Computational reconstruction of 3D chromosome configurations for super-resolution microscopy. *PLoS Computational Biology*, **2018**, 14, e1006002	5	1
10	SMAP – A Modular Superresolution Microscopy Analysis Platform for SMLM Data		1
9	Depth-dependent PSF calibration and aberration correction for 3D single-molecule localization		1
8	Nanoscale subcellular architecture revealed by multicolor 3D salvaged fluorescence imaging		1
7	Fast, robust and precise 3D localization for arbitrary point spread functions		1
6	Nanoscale pattern extraction from relative positions of sparse 3D localisations		1
5	3D super-resolution fluorescence microscopy maps the variable molecular architecture of the Nuclear Pore Complex		1
4	Photon-free (s)CMOS camera characterization for artifact reduction in high- and super-resolution microscopy		1
3	Maximum-likelihood model fitting for quantitative analysis of SMLM data		1
2	Nanoscale Pattern Extraction from Relative Positions of Sparse 3D Localizations. *Nano Letters*, **2021**, 21, 1213-1220	11.5	0
1	Supercritical Angle Localization Microscopy. *Biophysical Journal*, **2016**, 110, 648a	2.9	