Ralf Jungmann

List of Publications by Year
in descending order

110 papers	10,301 citations	53751 45 h-index	40954 93 g-index
133 all docs	133 docs citations	133 times ranked	8879 citing authors

#	Article	IF	Citations
1	Multiplexed 3D cellular super-resolution imaging with DNA-PAINT and Exchange-PAINT. Nature Methods, 2014, 11, 313-318.	9.0	881
2	Single-Molecule Kinetics and Super-Resolution Microscopy by Fluorescence Imaging of Transient Binding on DNA Origami. Nano Letters, 2010, 10, 4756-4761.	4.5	716
3	Super-resolution microscopy with DNA-PAINT. Nature Protocols, 2017, 12, 1198-1228.	5.5	689
4	Single-molecule localization microscopy. Nature Reviews Methods Primers, 2021, 1, .	11.8	390
5	Tug-of-War in Motor Protein Ensembles Revealed with a Programmable DNA Origami Scaffold. Science, 2012, 338, 662-665.	6.0	383
6	The nucleolus functions as a phase-separated protein quality control compartment. Science, 2019, 365, 342-347.	6.0	348
7	Programmable self-assembly of three-dimensional nanostructures from 10,000 unique components. Nature, 2017, 552, 72-77.	13.7	335
8	Single-molecule super-resolution imaging of chromosomes and in situ haplotype visualization using Oligopaint FISH probes. Nature Communications, 2015, 6, 7147.	5.8	329
9	Quantitative super-resolution imaging with qPAINT. Nature Methods, 2016, 13, 439-442.	9.0	328
10	Polyhedra Self-Assembled from DNA Tripods and Characterized with 3D DNA-PAINT. Science, 2014, 344, 65-69.	6.0	299
11	The ALFA-tag is a highly versatile tool for nanobody-based bioscience applications. Nature Communications, 2019, 10, 4403.	5.8	278
12	DNA Origami as a Nanoscopic Ruler for Superâ€Resolution Microscopy. Angewandte Chemie - International Edition, 2009, 48, 8870-8873.	7.2	260
13	Submicrometre geometrically encoded fluorescent barcodes self-assembled from DNA. Nature Chemistry, 2012, 4, 832-839.	6.6	252
14	Timing molecular motion and production with a synthetic transcriptional clock. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E784-93.	3.3	208
15	Optical imaging of individual biomolecules in densely packed clusters. Nature Nanotechnology, 2016, 11, 798-807.	15.6	204
16	Routing of individual polymers in designed patterns. Nature Nanotechnology, 2015, 10, 892-898.	15.6	189
17	Quantitative Analysis of Single Particle Trajectories: Mean Maximal Excursion Method. Biophysical Journal, 2010, 98, 1364-1372.	0.2	188
18	DNA-barcoded labeling probes for highly multiplexed Exchange-PAINT imaging. Chemical Science, 2017, 8, 3080-3091.	3.7	172

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19	DNA Origami Route for Nanophotonics. ACS Photonics, 2018, 5, 1151-1163.	3.2	171
20	Modified aptamers enable quantitative sub-10-nm cellular DNA-PAINT imaging. Nature Methods, 2018, 15, 685-688.	9.0	142
21	Localization microscopy at doubled precision with patterned illumination. Nature Methods, 2020, 17, 59-63.	9.0	138
22	Organellar Proteomics and Phospho-Proteomics Reveal Subcellular Reorganization in Diet-Induced Hepatic Steatosis. Developmental Cell, 2018, 47, 205-221.e7.	3.1	132
23	Multiplexed 3D super-resolution imaging of whole cells using spinning disk confocal microscopy and DNA-PAINT. Nature Communications, 2017, 8, 2090.	5.8	125
24	Isothermal Assembly of DNA Origami Structures Using Denaturing Agents. Journal of the American Chemical Society, 2008, 130, 10062-10063.	6.6	123
25	Rapid Sequential in Situ Multiplexing with DNA Exchange Imaging in Neuronal Cells and Tissues. Nano Letters, 2017, 17, 6131-6139.	4.5	116
26	Up to 100-fold speed-up and multiplexing in optimized DNA-PAINT. Nature Methods, 2020, 17, 789-791.	9.0	116
27	High-speed photography of compressed human trabecular bone correlates whitening to microscopic damage. Engineering Fracture Mechanics, 2007, 74, 1928-1941.	2.0	107
28	An order of magnitude faster DNA-PAINT imaging by optimized sequence design and buffer conditions. Nature Methods, 2019, 16, 1101-1104.	9.0	102
29	Molecular mechanism to recruit galectin-3 into multivesicular bodies for polarized exosomal secretion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4396-E4405.	3.3	98
30	Quantifying absolute addressability in DNA origami with molecular resolution. Nature Communications, 2018, 9, 1600.	5.8	97
31	Fast, Background-Free DNA-PAINT Imaging Using FRET-Based Probes. Nano Letters, 2017, 17, 6428-6434.	4.5	95
32	Live-cell super-resolved PAINT imaging of piconewton cellular traction forces. Nature Methods, 2020, 17, 1018-1024.	9.0	85
33	The bone diagnostic instrument II: Indentation distance increase. Review of Scientific Instruments, 2008, 79, 064303.	0.6	82
34	124-Color Super-resolution Imaging by Engineering DNA-PAINT Blinking Kinetics. Nano Letters, 2019, 19, 2641-2646.	4.5	82
35	Universal Superâ€Resolution Multiplexing by DNA Exchange. Angewandte Chemie - International Edition, 2017, 56, 4052-4055.	7.2	79
36	Direct Visualization of Single Nuclear Pore Complex Proteins Using Geneticallyâ€Encoded Probes for DNAâ€PAINT. Angewandte Chemie - International Edition, 2019, 58, 13004-13008.	7.2	77

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37	Siteâ€Specific Labeling of Affimers for DNAâ€PAINT Microscopy. Angewandte Chemie - International Edition, 2018, 57, 11060-11063.	7.2	71
38	Flat-top TIRF illumination boosts DNA-PAINT imaging and quantification. Nature Communications, 2019, 10, 1268.	5.8	67
39	The centrosome protein AKNA regulates neurogenesis via microtubule organization. Nature, 2019, 567, 113-117.	13.7	67
40	Liquidâ€"liquid phase separation underpins the formation of replication factories in rotaviruses. EMBO Journal, 2021, 40, e107711.	3.5	65
41	Template-free 2D particle fusion in localization microscopy. Nature Methods, 2018, 15, 781-784.	9.0	63
42	DNA origami demonstrate the unique stimulatory power of single pMHCs as T cell antigens. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	63
43	Circumvention of common labelling artefacts using secondary nanobodies. Nanoscale, 2020, 12, 10226-10239.	2.8	61
44	DNA origami-based nanoribbons: assembly, length distribution, and twist. Nanotechnology, 2011, 22, 275301.	1.3	59
45	Subâ€"100-nm metafluorophores with digitally tunable optical properties self-assembled from DNA. Science Advances, 2017, 3, e1602128.	4.7	58
46	Local strain and damage mapping in single trabeculae during three-point bending tests. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 523-534.	1.5	50
47	Peptide-PAINT Super-Resolution Imaging Using Transient Coiled Coil Interactions. Nano Letters, 2020, 20, 6732-6737.	4.5	49
48	Direct induction of microtubule branching by microtubule nucleation factor SSNA1. Nature Cell Biology, 2018, 20, 1172-1180.	4.6	48
49	Correlative Single-Molecule FRET and DNA-PAINT Imaging. Nano Letters, 2018, 18, 4626-4630.	4.5	47
50	DNA Origami as a Nanoscopic Ruler For Super-Resolution Microscopy. Biophysical Journal, 2010, 98, 184a.	0.2	43
51	Photo-Induced Depletion of Binding Sites in DNA-PAINT Microscopy. Molecules, 2018, 23, 3165.	1.7	43
52	DNA Origami Structures Directly Assembled from Intact Bacteriophages. Small, 2014, 10, 1765-1769.	5.2	39
53	DNA nanotechnology and fluorescence applications. Current Opinion in Biotechnology, 2016, 39, 41-47.	3.3	38
54	Site-Specifically-Labeled Antibodies for Super-Resolution Microscopy Reveal <i>In Situ</i> Linkage Errors. ACS Nano, 2021, 15, 12161-12170.	7.3	38

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55	Design Space for Complex DNA Structures. Journal of the American Chemical Society, 2013, 135, 18080-18088.	6.6	36
56	Nanometerâ€scale Multiplexed Superâ€Resolution Imaging with an Economic 3Dâ€DNAâ€PAINT Microscope. ChemPhysChem, 2018, 19, 3024-3034.	1.0	36
57	Toward Absolute Molecular Numbers in DNA-PAINT. Nano Letters, 2019, 19, 8182-8190.	4.5	33
58	Complex multicomponent patterns rendered on a 3D DNA-barrel pegboard. Nature Communications, 2020, 11, 5768.	5.8	33
59	Quantifying Reversible Surface Binding via Surface-Integrated Fluorescence Correlation Spectroscopy. Nano Letters, 2018, 18, 3185-3192.	4.5	32
60	3D particle averaging and detection of macromolecular symmetry in localization microscopy. Nature Communications, 2021, 12, 2847.	5.8	32
61	Quantitative single-protein imaging reveals molecular complex formation of integrin, talin, and kindlin during cell adhesion. Nature Communications, 2021, 12, 919.	5.8	31
62	Multiplexed Exchange-PAINT imaging reveals ligand-dependent EGFR and Met interactions in the plasma membrane. Scientific Reports, 2017, 7, 12150.	1.6	29
63	Single Particle Tracking and Super-Resolution Imaging of Membrane-Assisted Stop-and-Go Diffusion and Lattice Assembly of DNA Origami. ACS Nano, 2019, 13, 996-1002.	7.3	28
64	From DNA nanotechnology to synthetic biology. HFSP Journal, 2008, 2, 99-109.	2.5	25
65	The Effect of NaF In Vitro on the Mechanical and Material Properties of Trabecular and Cortical Bone. Advanced Materials, 2009, 21, 451-457.	11.1	25
66	Bacterially Derived Antibody Binders as Small Adapters for DNAâ€PAINT Microscopy. ChemBioChem, 2019, 20, 1032-1038.	1.3	25
67	Spatial centrosome proteome of human neural cells uncovers disease-relevant heterogeneity. Science, 2022, 376, .	6.0	25
68	Nanometrology and super-resolution imaging with DNA. MRS Bulletin, 2017, 42, 951-959.	1.7	24
69	Single-Molecule Super-Resolution Microscopy Reveals Heteromeric Complexes of MET and EGFR upon Ligand Activation. International Journal of Molecular Sciences, 2020, 21, 2803.	1.8	24
70	A Compact DNA Cube with Side Length 10 nm. Small, 2015, 11, 5200-5205.	5.2	22
71	Direct supercritical angle localization microscopy for nanometer 3D superresolution. Nature Communications, 2021, 12, 1180.	5.8	22
72	Super-resolved visualization of single DNA-based tension sensors in cell adhesion. Nature Communications, 2021, 12, 2510.	5.8	22

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73	Doubleâ€to Singleâ€Strand Transition Induces Forces and Motion in DNA Origami Nanostructures. Advanced Materials, 2021, 33, e2101986.	11.1	22
74	Controlled Co-reconstitution of Multiple Membrane Proteins in Lipid Bilayer Nanodiscs Using DNA as a Scaffold. ACS Chemical Biology, 2015, 10, 2448-2454.	1.6	21
75	Nanoscale imaging in DNA nanotechnology. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2012, 4, 66-81.	3.3	20
76	Nanoscale Pattern Extraction from Relative Positions of Sparse 3D Localizations. Nano Letters, 2021, 21, 1213-1220.	4.5	19
77	Super-resolution imaging and estimation of protein copy numbers at single synapses with DNA-point accumulation for imaging in nanoscale topography. Neurophotonics, 2019, 6, 1.	1.7	19
78	Quantitative Assessment of Labeling Probes for Superâ€Resolution Microscopy Using Designer DNA Nanostructures. ChemPhysChem, 2021, 22, 911-914.	1.0	18
79	Tracking single particles for hours via continuous DNA-mediated fluorophore exchange. Nature Communications, 2021, 12, 4432.	5.8	18
80	Quantification of Strand Accessibility in Biostable DNA Origami with Single-Staple Resolution. ACS Nano, 2021, 15, 17668-17677.	7.3	18
81	Bayesian Multiple Emitter Fitting using Reversible Jump Markov Chain Monte Carlo. Scientific Reports, 2019, 9, 13791.	1.6	17
82	Direct Visualization of Single Nuclear Pore Complex Proteins Using Geneticallyâ€Encoded Probes for DNAâ€PAINT. Angewandte Chemie, 2019, 131, 13138-13142.	1.6	16
83	Visualization of Bacterial Protein Complexes Labeled with Fluorescent Proteins and Nanobody Binders for STED Microscopy. International Journal of Molecular Sciences, 2019, 20, 3376.	1.8	15
84	Dynamic hostâ€"guest interaction enables autonomous single molecule blinking and super-resolution imaging. Chemical Communications, 2019, 55, 14430-14433.	2.2	15
85	Biophysical Characterization of Copolymer-Protected Gene Vectors. Biomacromolecules, 2010, 11, 1802-1809.	2.6	14
86	nanoTRON: a Picasso module for MLP-based classification of super-resolution data. Bioinformatics, 2020, 36, 3620-3622.	1.8	14
87	Detecting structural heterogeneity in single-molecule localization microscopy data. Nature Communications, 2021, 12, 3791.	5.8	14
88	Formation and Healing of Micrometer-Sized Channel Networks on Highly Mobile Au(111) Surfaces. Langmuir, 2007, 23, 5459-5465.	1.6	11
89	Ortsspezifische Funktionalisierung von Affimeren fÃ¼r die DNAâ€PAINTâ€Mikroskopie. Angewandte Chemie, 2018, 130, 11226-11230.	1.6	11
90	Simultaneous Multicolor DNA-PAINT without Sequential Fluid Exchange Using Spectral Demixing. Nano Letters, 2022, 22, 2682-2690.	4.5	11

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91	Universelles SuperauflÃ¶sungsâ€Multiplexing durch DNAâ€Austausch. Angewandte Chemie, 2017, 129, 4111-4114.	1.6	8
92	Superâ€Resolution Spatial Proximity Detection with Proximityâ€PAINT. Angewandte Chemie - International Edition, 2021, 60, 716-720.	7.2	8
93	Quantitative Imaging With DNA-PAINT for Applications in Synaptic Neuroscience. Frontiers in Synaptic Neuroscience, 2021, 13, 798267.	1.3	4
94	The Role of Nanoscale Distribution of Fibronectin in the Adhesion of <i>Staphylococcus aureus</i> Studied by Protein Patterning and DNA-PAINT. ACS Nano, 2022, 16, 10392-10403.	7.3	4
95	Assembly and Microscopic Characterization of DNA Origami Structures. Advances in Experimental Medicine and Biology, 2012, 733, 87-96.	0.8	3
96	DNAâ€Barcoded Fluorescence Microscopy for Spatial Omics. Proteomics, 2020, 20, e1900368.	1.3	3
97	Calibration-free counting of low molecular copy numbers in single DNA-PAINT localization clusters. Biophysical Reports, 2021, 1, 100032.	0.7	2
98	DNA-Paint and Exchange-Paint for Multiplexed 3D Super-Resolution Microscopy. Biophysical Journal, 2015, 108, 477a.	0.2	1
99	Overcoming obstacles in localization microscopy. Nature Methods, 2016, 13, 301-302.	9.0	1
100	One Nanometer Precision by Bayesian Grouping of Localizations. Biophysical Journal, 2019, 116, 291a.	0.2	1
101	Correlating DNA-PAINT and single-molecule FRET for multiplexed super-resolution imaging. , 2020, , .		1
102	Towards <i>In Vivo</i> Nanomachines. Advances in Science and Technology, 0, , .	0.2	0
103	Artificial molecular switches made from DNA. Nucleic Acids Symposium Series, 2008, 52, 17-18.	0.3	0
104	Single-Molecule Digital Imaging with Molecular Resolution using DNA-Paint. Biophysical Journal, 2015, 108, 477a-478a.	0.2	0
105	Optical Imaging and Labelling of Individual Biomolecules in Dense Clusters. Biophysical Journal, 2018, 114, 186a.	0.2	0
106	Activation and Cross-Interaction of Receptor Tyrosine Kinases Studied by Single-Particle Tracking. Biophysical Journal, 2019, 116, 175a.	0.2	0
107	Super-Resolution Microscopy with DNA Molecules: Towards Localizomics. Biophysical Journal, 2019, 116, 6a.	0.2	0
108	Front Cover: DNAâ€Barcoded Fluorescence Microscopy for Spatial Omics. Proteomics, 2020, 20, 2070161.	1.3	0

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109	SuperaufgelÃ¶ste Erkennung rÃumlicher NÃhe mit Proximityâ€PAINT. Angewandte Chemie, 2021, 133, 726-731.	1.6	0
110	Nanoscopy Using Localization and Temporal Separation of Fluorescence From Single Molecules. NATO Science for Peace and Security Series B: Physics and Biophysics, 2011, , 87-106.	0.2	0