Ernst H K Stelzer

List of Publications by Year in Descending Order

193 papers	19,066 citations	62 h-index	136 g-index
215 ext. papers	22,171 ext. citations	7.2 avg, IF	6.71 L-index

#	Paper	IF	Citations
193	Light sheet fluorescence microscopy. *Nature Reviews Methods Primers*, **2021**, 1,		15
192	QuickPIV: Efficient 3D particle image velocimetry software applied to quantifying cellular migration during embryogenesis. *BMC Bioinformatics*, **2021**, 22, 579	3.6	1
191	Non-invasive analysis of pancreas organoids in synthetic hydrogels defines material-cell interactions and luminal composition. *Biomaterials Science*, **2021**, 9, 5415-5426	7.4	2
190	Long-term live imaging and multiscale analysis identify heterogeneity and core principles of epithelial organoid morphogenesis. *BMC Biology*, **2021**, 19, 37	7.3	12
189	A deterministic genotyping workflow reduces waste of transgenic individuals by two-thirds. *Scientific Reports*, **2021**, 11, 15325	4.9	1
188	The transition from local to global patterns governs the differentiation of mouse blastocysts. *PLoS ONE*, **2020**, 15, e0233030	3.7	8
187	Measuring Stepwise Binding of Thermally Fluctuating Particles to Cell Membranes without Fluorescence. *Biophysical Journal*, **2020**, 118, 1850-1860	2.9	4
186	Early developmental plasticity of lateral roots in response to asymmetric water availability. *Nature Plants*, **2020**, 6, 73-77	11.5	12
185	Cell fate clusters in ICM organoids arise from cell fate heredity and division: a modelling approach. *Scientific Reports*, **2020**, 10, 22405	4.9	2
184	p63 uses a switch-like mechanism to set the threshold for induction of apoptosis. *Nature Chemical Biology*, **2020**, 16, 1078-1086	11.7	9
183	A GABAergic and peptidergic sleep neuron as a locomotion stop neuron with compartmentalized Ca2+ dynamics. *Nature Communications*, **2019**, 10, 4095	17.4	22
182	Biglycan evokes autophagy in macrophages via a novel CD44/Toll-like receptor 4 signaling axis in ischemia/reperfusion injury. *Kidney International*, **2019**, 95, 540-562	9.9	52
181	An ancestral apical brain region contributes to the central complex under the control of in the beetle. *ELife*, **2019**, 8,	8.9	11
180	Ultra-thin fluorocarbon foils optimise multiscale imaging of three-dimensional native and optically cleared specimens. *Scientific Reports*, **2019**, 9, 17292	4.9	9
179	Mouse ICM Organoids Reveal Three-Dimensional Cell Fate Clustering. *Biophysical Journal*, **2019**, 116, 127-141	2.9	17
178	E-cadherin, actin, microtubules and FAK dominate different spheroid formation phases and important elements of tissue integrity. *Biology Open*, **2019**, 8,	2.2	34
177	Oocyte DNA damage quality control requires consecutive interplay of CHK2 and CK1 to activate p63. *Nature Structural and Molecular Biology*, **2018**, 25, 261-269	17.6	66

176	Changes in the allocation of endogenous strigolactone improve plant biomass production on phosphate-poor soils. *New Phytologist*, **2018**, 217, 784-798	9.8	33
175	The molecular recognition of phosphatidic acid by an amphipathic helix in Opi1. *Journal of Cell Biology*, **2018**, 217, 3109-3126	7.3	30
174	A universal vector concept for a direct genotyping of transgenic organisms and a systematic creation of homozygous lines. *ELife*, **2018**, 7,	8.9	7
173	Multiscale image analysis reveals structural heterogeneity of the cell microenvironment in homotypic spheroids. *Scientific Reports*, **2017**, 7, 43693	4.9	25
172	Improving your four-dimensional image: traveling through a decade of light-sheet-based fluorescence microscopy research. *Nature Protocols*, **2017**, 12, 1103-1109	18.8	20
171	csiLSFM combines light-sheet fluorescence microscopy and coherent structured illumination for a lateral resolution below 100 nm. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 4869-4874	11.5	34
170	Endogenous AJAP1 associates with the cytoskeleton and attenuates angiogenesis in endothelial cells. *Biology Open*, **2017**, 6, 723-731	2.2	5
169	Three-Dimensional Live Imaging of Filamentous Fungi with Light Sheet-Based Fluorescence Microscopy (LSFM). *Methods in Molecular Biology*, **2017**, 1563, 19-31	1.4	4
168	A Novel Cellular Spheroid-Based Autophagy Screen Applying Live Fluorescence Microscopy Identifies Nonactin as a Strong Inducer of Autophagosomal Turnover. *SLAS Discovery*, **2017**, 22, 558-570	3.4	10
167	Light Sheet-based Fluorescence Microscopy of Living or Fixed and Stained Tribolium castaneum Embryos. *Journal of Visualized Experiments*, **2017**,	1.6	9
166	Quantitative three-dimensional evaluation of immunofluorescence staining for large whole mount spheroids with light sheet microscopy. *Biomedical Optics Express*, **2017**, 8, 484-499	3.5	35
165	Non-lethal genotyping of Tribolium castaneum adults using genomic DNA extracted from wing tissue. *PLoS ONE*, **2017**, 12, e0182564	3.7	2
164	Identifying the necrotic zone boundary in tumour spheroids with pair-correlation functions. *Journal of the Royal Society Interface*, **2016**, 13,	4.1	14
163	A 3-D cell culture system to study epithelia functions using microcarriers. *Cytotechnology*, **2016**, 68, 1813-25	2.2	16
162	Rules and Self-Organizing Properties of Post-embryonic Plant Organ Cell Division Patterns. *Current Biology*, **2016**, 26, 439-49	6.3	87
161	Optimal 2D-SIM reconstruction by two filtering steps with Richardson-Lucy deconvolution. *Scientific Reports*, **2016**, 6, 37149	4.9	33
160	Alternative exon usage creates novel transcript variants of tumor suppressor SHREW-1 gene with differential tissue expression profile. *Biology Open*, **2016**, 5, 1607-1619	2.2	1
159	Long-term fluorescence live imaging of Tribolium castaneum embryos: principles, resources, scientific challenges and the comparative approach. *Current Opinion in Insect Science*, **2016**, 18, 17-26	5.1	8

158	Live spheroid formation recorded with light sheet-based fluorescence microscopy. *Methods in Molecular Biology*, **2015**, 1251, 43-57	1.4	16
157	Light sheet-based fluorescence microscopy (LSFM) for the quantitative imaging of cells and tissues. *Cell and Tissue Research*, **2015**, 360, 129-41	4.2	44
156	Cytotoxicity and infiltration of human NK cells in in vivo-like tumor spheroids. *BMC Cancer*, **2015**, 15, 351	4.8	57
155	Lateral assembly of N-cadherin drives tissue integrity by stabilizing adherens junctions. *Journal of the Royal Society Interface*, **2015**, 12, 20141055	4.1	7
154	Robust and automated three-dimensional segmentation of densely packed cell nuclei in different biological specimens with Lines-of-Sight decomposition. *BMC Bioinformatics*, **2015**, 16, 187	3.6	33
153	Live imaging of Tribolium castaneum embryonic development using light-sheet-based fluorescence microscopy. *Nature Protocols*, **2015**, 10, 1486-507	18.8	17
152	A Photorhabdus natural product inhibits insect juvenile hormone epoxide hydrolase. *ChemBioChem*, **2015**, 16, 766-71	3.8	31
151	Light-sheet fluorescence microscopy for quantitative biology. *Nature Methods*, **2015**, 12, 23-6	21.6	179
150	Hsp90 is involved in the regulation of cytosolic precursor protein abundance in tomato. *Molecular Plant*, **2015**, 8, 228-41	14.4	17
149	Non-invasive long-term fluorescence live imaging of Tribolium castaneum embryos. *Development (Cambridge)*, **2014**, 141, 2331-8	6.6	45
148	Non-invasive long-term fluorescence live imaging of Tribolium castaneum embryos. *Development (Cambridge)*, **2014**, 141, 2361-2361	6.6	2
147	Live imaging of Arabidopsis development. *Methods in Molecular Biology*, **2014**, 1062, 539-50	1.4	14
146	A spatial accommodation by neighboring cells is required for organ initiation in Arabidopsis. *Science* , **2014**, 343, 178-83	33.3	183
145	Imaging cellular spheroids with a single (selective) plane illumination microscope. *Cold Spring Harbor Protocols*, **2014**, 2014, 106-13	1.2	10
144	Tissue-culture light sheet fluorescence microscopy (TC-LSFM) allows long-term imaging of three-dimensional cell cultures under controlled conditions. *Integrative Biology (United Kingdom)*, **2014**, 6, 988-98	3.7	29
143	Live imaging and quantitative analysis of gastrulation in mouse embryos using light-sheet microscopy and 3D tracking tools. *Nature Protocols*, **2014**, 9, 575-85	18.8	31
142	3D high-content screening for the identification of compounds that target cells in dormant tumor spheroid regions. *Experimental Cell Research*, **2014**, 323, 131-143	4.2	170
141	Imaging MDCK cysts with a single (selective) plane illumination microscope. *Cold Spring Harbor Protocols*, **2014**, 2014, 114-8	1.2	7

140	Identification of autophagy as a longevity-assurance mechanism in the aging model Podospora anserina. *Autophagy*, **2014**, 10, 822-34	10.2	45
139	Invited review article: Advanced light microscopy for biological space research. *Review of Scientific Instruments*, **2014**, 85, 101101	1.7	17
138	Better imaging through chemistry. *Cell*, **2014**, 159, 1243-6	56.2	5
137	Trans-Golgi network localized small GTPase RabA1d is involved in cell plate formation and oscillatory root hair growth. *BMC Plant Biology*, **2014**, 14, 252	5.3	36
136	Light-sheet-based fluorescence microscopy for three-dimensional imaging of biological samples. *Cold Spring Harbor Protocols*, **2014**, 2014, 1-8	1.2	15
135	Quantifying the autophagy-triggering effects of drugs in cell spheroids with live fluorescence microscopy. *Methods in Molecular Biology*, **2014**, 1165, 19-29	1.4	5
134	Recent advances in 2D and 3D in vitro systems using primary hepatocytes, alternative hepatocyte sources and non-parenchymal liver cells and their use in investigating mechanisms of hepatotoxicity, cell signaling and ADME. *Archives of Toxicology*, **2013**, 87, 1315-530	5.8	837
133	Quantitative 3D cell-based assay performed with cellular spheroids and fluorescence microscopy. *Methods in Cell Biology*, **2013**, 113, 295-309	1.8	20
132	High-resolution deep imaging of live cellular spheroids with light-sheet-based fluorescence microscopy. *Cell and Tissue Research*, **2013**, 352, 161-77	4.2	114
131	An auxin transport mechanism restricts positive orthogravitropism in lateral roots. *Current Biology*, **2013**, 23, 817-22	6.3	92
130	Lateral root morphogenesis is dependent on the mechanical properties of the overlaying tissues. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5229-34	11.5	165
129	Live imaging of whole mouse embryos during gastrulation: migration analyses of epiblast and mesodermal cells. *PLoS ONE*, **2013**, 8, e64506	3.7	48
128	Role of N-cadherin cis and trans interfaces in the dynamics of adherens junctions in living cells. *PLoS ONE*, **2013**, 8, e81517	3.7	16
127	Three-dimensional Fluorescence Lifetime Imaging with a Single Plane Illumination Microscope provides an improved signal to noise ratio. *Optics Express*, **2011**, 19, 20743-50	3.3	41
126	High-resolution live imaging of plant growth in near physiological bright conditions using light sheet fluorescence microscopy. *Plant Journal*, **2011**, 68, 377-85	6.9	135
125	Viscoelastic response of contractile filament bundles. *Physical Review E*, **2011**, 83, 051902	2.4	22
124	Light sheet-based fluorescence microscopy (LSFM) reduces phototoxic effects and provides new means for the modern life sciences **2011**,		2
123	A novel laser nanosurgery approach supports de novo Golgi biogenesis in mammalian cells. *Journal of Cell Science*, **2011**, 124, 978-87	5.3	21

122	Digital scanned laser light-sheet fluorescence microscopy (DSLM) of zebrafish and Drosophila embryonic development. *Cold Spring Harbor Protocols*, **2011**, 2011, 1235-43	1.2	40
121	Fast, high-contrast imaging of animal development with scanned light sheet-based structured-illumination microscopy. *Nature Methods*, **2010**, 7, 637-42	21.6	411
120	Digital scanned laser light sheet fluorescence microscopy. *Cold Spring Harbor Protocols*, **2010**, 2010, pdb.top78	1.2	33
119	Single plane illumination fluorescence correlation spectroscopy (SPIM-FCS) probes inhomogeneous three-dimensional environments. *Optics Express*, **2010**, 18, 10627-41	3.3	115
118	ImFCS: a software for imaging FCS data analysis and visualization. *Optics Express*, **2010**, 18, 25468-81	3.3	50
117	Nlcam modulates midline convergence during anterior neural plate morphogenesis. *Developmental Biology*, **2010**, 339, 14-25	3.1	40
116	Three-dimensional cell cultures in toxicology. *Biotechnology and Genetic Engineering Reviews*, **2010**, 26, 117-38	4.1	57
115	Madin-Darby canine kidney cells are increased in aerobic glycolysis when cultured on flat and stiff collagen-coated surfaces rather than in physiological 3-D cultures. *Proteomics*, **2010**, 10, 3394-413	4.8	13
114	Membrane invaginations reveal cortical sites that pull on mitotic spindles in one-cell C. elegans embryos. *PLoS ONE*, **2010**, 5, e12301	3.7	67
113	Mechanosensing in actin stress fibers revealed by a close correlation between force and protein localization. *Journal of Cell Science*, **2009**, 122, 1665-79	5.3	206
112	Three-dimensional tissue models for drug discovery and toxicology. *Recent Patents on Biotechnology*, **2009**, 3, 103-17	2.2	74
111	A macrodomain-containing histone rearranges chromatin upon sensing PARP1 activation. *Nature Structural and Molecular Biology*, **2009**, 16, 923-9	17.6	341
110	Mechanosensing in actin stress fibers revealed by a close correlation between force and protein localization. *Journal of Cell Science*, **2009**, 122, 1928-1928	5.3	15
109	The SpoMBe pathway drives membrane bending necessary for cytokinesis and spore formation in yeast meiosis. *EMBO Journal*, **2008**, 27, 2363-74	13	17
108	Mechanism of phototaxis in marine zooplankton. *Nature*, **2008**, 456, 395-9	50.4	208
107	Quantitative in vivo imaging of entire embryos with Digital Scanned Laser Light Sheet Fluorescence Microscopy. *Current Opinion in Neurobiology*, **2008**, 18, 624-32	7.6	118
106	Three-dimensional microtubule behavior in Xenopus egg extracts reveals four dynamic states and state-dependent elastic properties. *Biophysical Journal*, **2008**, 95, 1474-86	2.9	21
105	Reconstruction of zebrafish early embryonic development by scanned light sheet microscopy. *Science*, **2008**, 322, 1065-9	33.3	1075

104	A correlative light and electron microscopy method based on laser micropatterning and etching. *Methods in Molecular Biology*, **2008**, 457, 203-13	1.4	16
103	Light sheet-based fluorescence microscopy: more dimensions, more photons, and less photodamage. *HFSP Journal*, **2008**, 2, 266-75		134
102	In vivo imaging of the inflammatory receptor CD40 after cerebral ischemia using a fluorescent antibody. *Stroke*, **2008**, 39, 2845-52	6.7	52
101	Investigating relaxation processes in cells and developing organisms: from cell ablation to cytoskeleton nanosurgery. *Methods in Cell Biology*, **2007**, 82, 267-91	1.8	21
100	High-resolution three-dimensional imaging of large specimens with light sheet-based microscopy. *Nature Methods*, **2007**, 4, 311-3	21.6	261
99	Three-dimensional preparation and imaging reveal intrinsic microtubule properties. *Nature Methods*, **2007**, 4, 843-6	21.6	34
98	The third dimension bridges the gap between cell culture and live tissue. *Nature Reviews Molecular Cell Biology*, **2007**, 8, 839-45	48.7	1881
97	Filopodia act as phagocytic tentacles and pull with discrete steps and a load-dependent velocity. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 11633-8	11.5	173
96	Lateral modulation boosts image quality in single plane illumination fluorescence microscopy. *Optics Letters*, **2007**, 32, 1938-40	3	64
95	Three-dimensional optical manipulation using four collimated intersecting laser beams. *Optics Express*, **2007**, 15, 4921-8	3.3	9
94	Three-dimensional laser microsurgery in light-sheet based microscopy (SPIM). *Optics Express*, **2007**, 15, 6420-30	3.3	38
93	Multi-view image fusion improves resolution in three-dimensional microscopy. *Optics Express*, **2007**, 15, 8029-42	3.3	147
92	Life sciences require the third dimension. *Current Opinion in Cell Biology*, **2006**, 18, 117-24	9	72
91	Resolution enhancement in a light-sheet-based microscope (SPIM). *Optics Letters*, **2006**, 31, 1477-9	3	136
90	Interferometric tracking of optically trapped probes behind structured surfaces: A phase correction method. *Applied Optics*, **2006**, 45, 7309-15	1.7	21
89	Digital Microscopy (ODMS) **2006**, 519-568		
88	Dynamic organization of the actin cytoskeleton during meiosis and spore formation in budding yeast. *Traffic*, **2006**, 7, 1628-42	5.7	33
87	Nud1p, the yeast homolog of Centriolin, regulates spindle pole body inheritance in meiosis. *EMBO Journal*, **2006**, 25, 3856-68	13	23

86	Dynein-mediated pulling forces drive rapid mitotic spindle elongation in Ustilago maydis. *EMBO Journal*, **2006**, 25, 4897-908	13	51
85	Databases for Two- and Three-Dimensional Microscopical Images in Biology **2006**, 861-869		
84	Selective Plane Illumination Microscopy **2006**, 672-679		2
83	The Intermediate Optical System of Laser-Scanning Confocal Microscopes **2006**, 207-220		12
82	In vivo selective cytoskeleton dynamics quantification in interphase cells induced by pulsed ultraviolet laser nanosurgery. *Traffic*, **2005**, 6, 1093-102	5.7	58
81	Subcellular nanosurgery with a pulsed subnanosecond UV-A laser. *Medical Laser Application: International Journal for Laser Treatment and Research*, **2005**, 20, 217-222		14
80	Spore number control and breeding in Saccharomyces cerevisiae: a key role for a self-organizing system. *Journal of Cell Biology*, **2005**, 171, 627-40	7.3	60
79	Control of relative radiation pressure in optical traps: application to phagocytic membrane binding studies. *Physical Review E*, **2005**, 71, 061927	2.4	36
78	Three-dimensional bead position histograms reveal single-molecule nanomechanics. *Physical Review E*, **2005**, 71, 021907	2.4	13
77	Ultraviolet diffraction limited nanosurgery of live biological tissues. *Review of Scientific Instruments*, **2004**, 75, 472-478	1.7	57
76	Mechanical properties of single motor molecules studied by three-dimensional thermal force probing in optical tweezers. *ChemPhysChem*, **2004**, 5, 1150-8	3.2	56
75	Tilt angle dependent three-dimensional-position detection of a trapped cylindrical particle in a focused laser beam. *Applied Physics Letters*, **2004**, 84, 4271-4273	3.4	14
74	Stable chromosomal units determine the spatial and temporal organization of DNA replication. *Journal of Cell Science*, **2004**, 117, 5353-65	5.3	78
73	Optical sectioning deep inside live embryos by selective plane illumination microscopy. *Science*, **2004**, 305, 1007-9	33.3	1531
72	Trapping and tracking a local probe with a photonic force microscope. *Review of Scientific Instruments*, **2004**, 75, 2197-2210	1.7	120
71	Reply to comment on Trapping force, force constant, and potential depths for dielectric spheres in the presence of spherical aberrations **2004**, 43, 1827		6
70	Active particle manipulation with four laser beams **2004**, 5322, 114		1
69	Resolution in optical microscopy. *Methods in Enzymology*, **2003**, 360, 416-46	1.7	22

68	The distribution of active force generators controls mitotic spindle position. *Science*, **2003**, 301, 518-21	33.3	292
67	Three-dimensional tracking of small spheres in focused laser beams: influence of the detection angular aperture. *Optics Letters*, **2003**, 28, 411-3	3	55
66	Multiple imaging axis microscopy improves resolution for thick-sample applications. *Optics Letters*, **2003**, 28, 1654-6	3	48
65	Visualizing chromatin and chromosomes in living cells. *Methods*, **2003**, 29, 42-50	4.6	65
64	Albumin-based drug delivery as novel therapeutic approach for rheumatoid arthritis. *Journal of Immunology*, **2003**, 170, 4793-801	5.3	156
63	Optical Trapping of Small Particles. *Springer Series in Optical Sciences*, **2003**, 357-388	0.5	
62	Dynamic organization of the actin system in the motile cells of Dictyostelium. *Journal of Muscle Research and Cell Motility*, **2002**, 23, 639-49	3.5	40
61	Targeting of rough endoplasmic reticulum membrane proteins and ribosomes in invertebrate neurons. *Molecular Biology of the Cell*, **2002**, 13, 1778-91	3.5	130
60	Optical levitation of absorbing particles with a nominally Gaussian laser beam. *Optics Letters*, **2002**, 27, 1223-5	3	28
59	Optical scanning holography as a technique for high-resolution three-dimensional biological microscopy. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2002**, 19, 1910-8	1.8	40
58	Tailoring the axial shape of the point spread function using the Toraldo concept. *Optics Express*, **2002**, 10, 98-103	3.3	66
57	Trapping forces, force constants, and potential depths for dielectric spheres in the presence of spherical aberrations. *Applied Optics*, **2002**, 41, 2494-507	1.7	134
56	Three-dimensional position detection of optically trapped dielectric particles. *Journal of Applied Physics*, **2002**, 91, 5474-5488	2.5	129
55	Large-scale chromatin fibers of living cells display a discontinuous functional organization. *Chromosoma*, **2001**, 110, 39-51	2.8	21
54	Spatial partitioning of secretory cargo from Golgi resident proteins in live cells. *BMC Cell Biology*, **2001**, 2, 19		21
53	Polarity controls forces governing asymmetric spindle positioning in the Caenorhabditis elegans embryo. *Nature*, **2001**, 409, 630-3	50.4	409
52	Quantitative ER Golgi transport kinetics and protein separation upon Golgi exit revealed by vesicular integral membrane protein 36 dynamics in live cells. *Molecular Biology of the Cell*, **2001**, 12, 1481-98	3.5	27
51	Confocal Microscopy **2001**,		2

50	Optical trapping of dielectric particles in arbitrary fields. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2001**, 18, 839-53	1.8	124
49	Three-dimensional thermal noise imaging. *Applied Physics Letters*, **2001**, 79, 3878-3880	3.4	55
48	Photonic Force Microscopy: A New Tool Providing New Methods to Study Membranes at the Molecular Level. *Single Molecules*, **2000**, 1, 129-133		13
47	Confocal Theta Fluorescence Microscopy: Practical Considerations **1999**, 208-219		
46	Rab6 coordinates a novel Golgi to ER retrograde transport pathway in live cells. *Journal of Cell Biology*, **1999**, 147, 743-60	7.3	365
45	Photobleaching GFP reveals protein dynamics inside live cells. *Trends in Cell Biology*, **1999**, 9, 61-5	18.3	221
44	Three-dimensional high-resolution particle tracking for optical tweezers by forward scattered light. *Microscopy Research and Technique*, **1999**, 44, 378-86	2.8	251
43	Single-lens theta microscopy: Resolution, efficiency and working distance. *Journal of Modern Optics*, **1999**, 46, 843-858	1.1	12
42	The BioImage Database Project: organizing multidimensional biological images in an object-relational database. *Journal of Structural Biology*, **1999**, 125, 97-102	3.4	34
41	Local viscosity probed by photonic force microscopy. *Applied Physics A: Materials Science and Processing*, **1998**, 66, S71-S73	2.6	86
40	Photonic force microscope calibration by thermal noise analysis. *Applied Physics A: Materials Science and Processing*, **1998**, 66, S75-S78	2.6	164
39	Analysis of human interphase chromosome territories in vivo. *Biology of the Cell*, **1998**, 90, 277-277	3.5	
38	Structure and dynamics of human interphase chromosome territories in vivo. *Human Genetics*, **1998** , 102, 241-51	6.3	283
37	Contrast, resolution, pixelation, dynamic range and signal-to-noise ratio: fundamental limits to resolution in fluorescence light microscopy. *Journal of Microscopy*, **1998**, 189, 15-24	1.9	164
36	A confocal fiber-coupled single-lens theta microscope. *Review of Scientific Instruments*, **1998**, 69, 2956-2963	1.7	4
35	Recycling of golgi-resident glycosyltransferases through the ER reveals a novel pathway and provides an explanation for nocodazole-induced Golgi scattering. *Journal of Cell Biology*, **1998**, 143, 1505-21	7.3	303
34	Photonic force microscope based on optical tweezers and two-photon excitation for biological applications. *Journal of Structural Biology*, **1997**, 119, 202-11	3.4	118
33	Confocal theta fluorescence microscopy with annular apertures. *Applied Optics*, **1996**, 35, 126-30	1.7	25

32	Optical transfer functions for confocal theta fluorescence microscopy. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1996**, 13, 479	1.8	18
31	High-resolution axial and lateral position sensing using two-photon excitation of fluorophores by a continuous-wave Nd:YAG laser. *Applied Physics Letters*, **1996**, 69, 446-448	3.4	58
30	3D Microscopy using Confocal Microscopy. *Proceedings Annual Meeting Electron Microscopy Society of America*, **1996**, 54, 270-271		
29	Application of confocal laser microscopy and three-dimensional Voronoi diagrams for volume and surface estimates of interphase chromosomes. *Journal of Microscopy*, **1995**, 177, 150-61	1.9	36
28	Lens Aberrations in Confocal Fluorescence Microscopy **1995**, 347-354		24
27	Two New High-Resolution Confocal Fluorescence Microscopies (4Pi, Theta) with One- and Two-Photon Excitation **1995**, 417-430		8
26	The Intermediate Optical System of Laser-Scanning Confocal Microscopes **1995**, 139-154		8
25	Confocal theta microscope with three objective lenses. *Review of Scientific Instruments*, **1994**, 65, 3367-3372	1.7	29
24	Fundamental reduction of the observation volume in far-field light microscopy by detection orthogonal to the illumination axis: confocal theta microscopy. *Optics Communications*, **1994**, 111, 536-547	2	124
23	Nonlinear absorption extends confocal fluorescence microscopy into the ultra-violet regime and confines the illumination volume. *Optics Communications*, **1994**, 104, 223-228	2	95
22	Designing a Confocal Fluorescence Microscope **1994**, 33-51		1
21	Confocal microscopy with an increased detection aperture: type-B 4Pi confocal microscopy. *Optics Letters*, **1994**, 19, 222	3	124
20	Measurement of the 4Pi-confocal point spread function proves 75 nm axial resolution. *Applied Physics Letters*, **1994**, 64, 1335-1337	3.4	115
19	Enhancing the Axial Resolution in Far-field Light Microscopy: Two-photon 4Pi Confocal Fluorescence Microscopy. *Journal of Modern Optics*, **1994**, 41, 675-681	1.1	72
18	Aberrations in confocal fluorescence microscopy induced by mismatches in refractive index. *Journal of Microscopy*, **1993**, 169, 391-405	1.9	458
17	Differences of size and shape of active and inactive X-chromosome domains in human amniotic fluid cell nuclei. *Microscopy Research and Technique*, **1993**, 25, 68-77	2.8	30
16	Control of microtubule dynamics and length by cyclin A- and cyclin B-dependent kinases in Xenopus egg extracts. *Journal of Cell Biology*, **1992**, 118, 1097-108	7.3	351
15	Properties of a 4Pi confocal fluorescence microscope. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1992**, 9, 2159	1.8	366

14	Fundamental improvement of resolution with a 4Pi-confocal fluorescence microscope using two-photon excitation. *Optics Communications*, **1992**, 93, 277-282	2	324
13	Hypervariable C-terminal domain of rab proteins acts as a targeting signal. *Nature*, **1991**, 353, 769-72	50.4	361
12	The three-dimensional architecture of the mitotic spindle, analyzed by confocal fluorescence and electron microscopy. *Journal of Electron Microscopy Technique*, **1991**, 18, 61-73		18
11	Nonlinear filtering in improving the image quality of confocal fluorescent images. *Machine Vision and Applications*, **1991**, 4, 243-253	2.8	1
10	Regulation of microtubule dynamics and nucleation during polarization in MDCK II cells. *Journal of Cell Biology*, **1990**, 111, 3013-21	7.3	93
9	Distribution of chromosome 18 and X centric heterochromatin in the interphase nucleus of cultured human cells. *Experimental Cell Research*, **1990**, 189, 1-12	4.2	62
8	The Intermediate Optical System of Laser-scanning Confocal Microscopes **1990**, 93-103		6
7	An antibody against secretogranin I (chromogranin B) is packaged into secretory granules. *Journal of Cell Biology*, **1989**, 109, 17-34	7.3	119
6	The subcellular organization of Madin-Darby canine kidney cells during the formation of a polarized epithelium. *Journal of Cell Biology*, **1989**, 109, 2817-32	7.3	441
5	Preservation of biological specimens for observation in a confocal fluorescence microscope and operational principles of confocal fluorescence microscopy. *Methods in Cell Biology*, **1989**, 31, 437-52	1.8	44
4	Sorting of sphingolipids in epithelial (Madin-Darby canine kidney) cells. *Journal of Cell Biology*, **1987** , 105, 1623-35	7.3	386
3	Cell Fate Clusters in ICM Organoids Arise from Cell Fate Heredity & Division – a Modelling Approach		2
2	Single-lens theta microscopy: Resolution, efficiency and working distance		1
1	Three-dimensional cell neighbourhood impacts differentiation in the inner mass cells of the mouse blastocyst		2