Iva M ToliÄ

List of Publications by Year
in descending order

98 papers	6,144 citations	117453 34 h-index	79541 73 g-index
113 all docs	113 docs citations	113 times ranked	6160 citing authors

#	Article	IF	Citations
1	Naegleriaâ€™s mitotic spindles are built from unique tubulins and highlight core spindle features. Current Biology, 2022, 32, 1247-1261.e6.	1.8	14
2	The power of parasite collectives. Nature Physics, 2022, 18, 491-492.	6.5	0
3	Polar Chromosomesâ€"Challenges of a Risky Path. Cells, 2022, 11, 1531.	1.8	6
4	The chirality of the mitotic spindle provides a mechanical response to forces and depends on microtubule motors and augmin. Current Biology, 2022, 32, 2480-2493.e6.	1.8	11
5	Nuclear chromosome locations dictate segregation error frequencies. Nature, 2022, 607, 604-609.	13.7	39
6	Expansion microscopy of the mitotic spindle. Methods in Cell Biology, 2021, 161, 247-274.	0.5	12
7	Mechanobiology of the Mitotic Spindle. Developmental Cell, 2021, 56, 192-201.	3.1	32
8	Optogenetic control of PRC1 reveals its role in chromosome alignment on the spindle by overlap length-dependent forces. ELife, 2021, 10, .	2.8	44
9	Mitotic spindle: lessons from theoretical modeling. Molecular Biology of the Cell, 2021, 32, 218-222.	0.9	11
10	Optogenetic Control of Spindle Microtubule Crosslinkers Reveals that Bridging Fibers Promote Chromosome Alignment by Overlap Length-Dependent Forces. Biophysical Journal, 2021, 120, 1a.	0.2	1
11	Biomechanics of chromosome alignment at the spindle midplane. Current Biology, 2021, 31, R574-R585.	1.8	26
12	Microtubule-sliding modules based on kinesins EG5 and PRC1-dependent KIF4A drive human spindle elongation. Developmental Cell, 2021, 56, 1253-1267.e10.	3.1	47
13	Oblique circle method for measuring the curvature and twist of mitotic spindle microtubule bundles. Biophysical Journal, 2021, 120, 3641-3648.	0.2	6
14	Anaphase B: Long-standing models meet new concepts. Seminars in Cell and Developmental Biology, 2021, 117, 127-139.	2.3	20
15	Bridging Microtubules Promote Centering of the Kinetochores by Length-Dependent Pulling Forces. Biophysical Journal, 2020, 118, 350a.	0.2	0
16	Pivot-and-bond model explains microtubule bundle formation. Physical Review E, 2019, 100, 012403.	0.8	3
17	Pivoting of microtubules driven by minus-end-directed motors leads to spindle assembly. BMC Biology, 2019, 17, 42.	1.7	19
18	Meiotic Spindle Has a Soft Spot. Developmental Cell, 2019, 49, 159-160.	3.1	1

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19	Spindle mechanics and chromosome segregation. Molecular Biology of the Cell, 2019, 30, 735-736.	0.9	5
20	Helical Twist and Rotational Forces in the Mitotic Spindle. Biomolecules, 2019, 9, 132.	1.8	12
21	Pivoting of Microtubules Driven by Minus End Directed Motors Leads to their Alignment to form an Interpolar Bundle. Biophysical Journal, 2019, 116, 253a.	0.2	0
22	Force-generating mechanisms of anaphase in human cells. Journal of Cell Science, 2019, 132, .	1.2	51
23	Torques and Forces in the Mitotic Spindle. Biophysical Journal, 2018, 114, 388a.	0.2	0
24	Mitotic spindle: kinetochore fibers hold on tight to interpolar bundles. European Biophysics Journal, 2018, 47, 191-203.	1.2	45
25	The mitotic spindle is chiral due to torques within microtubule bundles. Nature Communications, 2018, 9, 3571.	5.8	51
26	Optogenetic reversible knocksideways, laser ablation, and photoactivation on the mitotic spindle in human cells. Methods in Cell Biology, 2018, 145, 191-215.	0.5	13
27	Metaphase kinetochore movements are regulated by kinesin-8 motors and microtubule dynamic instability. Molecular Biology of the Cell, 2018, 29, 1332-1345.	0.9	21
28	<scp>PRC</scp> 1â€labeled microtubule bundles and kinetochore pairs show oneâ€toâ€one association in metaphase. EMBO Reports, 2017, 18, 217-230.	2.0	93
29	Microtubule Sliding within the Bridging Fiber Pushes Kinetochore Fibers Apart to Segregate Chromosomes. Developmental Cell, 2017, 43, 11-23.e6.	3.1	100
30	Live cell X-ray imaging of autophagic vacuoles formation and chromatin dynamics in fission yeast. Scientific Reports, 2017, 7, 13775.	1.6	18
31	Dissection and characterization of microtubule bundles in the mitotic spindle using femtosecond laser ablation. Methods in Cell Biology, 2017, 139, 81-101.	0.5	18
32	Meiotic Nuclear Oscillations Are Necessary to Avoid Excessive Chromosome Associations. Cell Reports, 2016, 17, 1632-1645.	2.9	35
33	Mitotic Spindle Assembly: Building the Bridge between Sister K-Fibers. Trends in Biochemical Sciences, 2016, 41, 824-833.	3.7	27
34	Paired arrangement of kinetochores together with microtubule pivoting and dynamics drive kinetochore capture in meiosis I. Scientific Reports, 2016, 6, 25736.	1.6	13
35	Bridging the gap between sister kinetochores. Cell Cycle, 2016, 15, 1169-1170.	1.3	16
36	Self-Organization and Forces in the Mitotic Spindle. Annual Review of Biophysics, 2016, 45, 279-298.	4.5	81

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37	Laser microsurgery reveals conserved viscoelastic behavior of the kinetochore. Journal of Cell Biology, 2016, 212, 767-776.	2.3	25
38	Overlap microtubules link sister k-fibres and balance the forces on bi-oriented kinetochores. Nature Communications, 2016, 7, 10298.	5.8	127
39	A Bundle of Antiparallel Microtubules Connects Sister K-Fibers and Balances Forces within the Metaphase Spindle. Biophysical Journal, 2015, 108, 451a-452a.	0.2	0
40	Pulled Polymer Loops as a Model for the Alignment of Meiotic Chromosomes. Physical Review Letters, 2015, 115, 208102.	2.9	16
41	Asymmetric damage segregation at cell division via protein aggregate fusion and attachment to organelles. BioEssays, 2015, 37, 740-747.	1.2	17
42	Kinesin-8 Motors Improve Nuclear Centering by Promoting Microtubule Catastrophe. Physical Review Letters, 2015, 114, 078103.	2.9	20
43	Fusion leads to effective segregation of damage during cell division: An analytical treatment. Journal of Theoretical Biology, 2015, 378, 47-55.	0.8	11
44	Single-molecule imaging of cytoplasmic dynein inÂvivo. Methods in Cell Biology, 2015, 125, 1-12.	0.5	13
45	Real-Time Imaging of DNA Damage in Yeast Cells Using Ultra-Short Near-Infrared Pulsed Laser Irradiation. PLoS ONE, 2014, 9, e113325.	1.1	4
46	A divide and conquer strategy for the maximum likelihood localization of low intensity objects. Optics Express, 2014, 22, 210.	1.7	96
47	Fusion of Protein Aggregates Facilitates Asymmetric Damage Segregation. PLoS Biology, 2014, 12, e1001886.	2.6	56
48	Swinging a sword: how microtubules search for their targets. Systems and Synthetic Biology, 2014, 8, 179-186.	1.0	24
49	Isotropic actomyosin dynamics promote organization of the apical cell cortex in epithelial cells. Journal of Cell Biology, 2014, 207, 107-121.	2.3	28
50	When the Going Gets Tough: Scientistsâ€™ Personal Challenges. Cell, 2014, 159, 225-226.	13.5	0
51	Astral Microtubule Pivoting Promotes Their Search for Cortical Anchor Sites during Mitosis in Budding Yeast. PLoS ONE, 2014, 9, e93781.	1.1	15
52	Fission Yeast Does Not Age under Favorable Conditions, but Does So after Stress. Current Biology, 2013, 23, 1844-1852.	1.8	83
53	Pivoting of microtubules around the spindle pole accelerates kinetochore capture. Nature Cell Biology, 2013, 15, 82-87.	4.6	68
54	Single-molecule imaging<i>in vivo</i>: the dancing building blocks of the cell. Integrative Biology (United Kingdom), 2013, 5, 748-758.	0.6	50

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55	Dynein Motion Switches from Diffusive to Directed upon Cortical Anchoring. Cell, 2013, 153, 1526-1536.	13.5	84
56	Dynein, microtubule and cargo: a mÃ©nage Ã trois. Biochemical Society Transactions, 2013, 41, 1731-1735.	1.6	17
57	Identification and Regulation of a Molecular Module for Bleb-Based Cell Motility. Developmental Cell, 2012, 23, 210-218.	3.1	61
58	Merotelic kinetochore attachment: causes and effects. Trends in Cell Biology, 2011, 21, 374-381.	3.6	215
59	Iva Tolic-NÃ¸rrelykke. Current Biology, 2011, 21, R299-R300.	1.8	0
60	Refreshed but vulnerable: Yeast daughter cells are more sensitive to stress than young mothers. Cell Cycle, 2011, 10, 23-22.	1.3	0
61	Laser Ablation of the Microtubule Cytoskeleton: Setting Up and Working with an Ablation System. Methods in Molecular Biology, 2011, 777, 261-271.	0.4	7
62	Cell Polarity: Which Way to Grow in an Electric Field?. Current Biology, 2010, 20, R355-R356.	1.8	4
63	Force and length regulation in the microtubule cytoskeleton: lessons from fission yeast. Current Opinion in Cell Biology, 2010, 22, 21-28.	2.6	35
64	Optical Trapping and Laser Ablation of Microtubules in Fission Yeast. Methods in Cell Biology, 2010, 97, 173-183.	0.5	9
65	Axon Extension Occurs Independently of Centrosomal Microtubule Nucleation. Science, 2010, 327, 704-707.	6.0	243
66	Laser microsurgery provides evidence for merotelic kinetochore attachments in fission yeast cells lacking Pcs1 or Clr4. Cell Cycle, 2010, 9, 3997-4004.	1.3	52
67	Self-Organization of Dynein Motors Generates Meiotic Nuclear Oscillations. PLoS Biology, 2009, 7, e1000087.	2.6	110
68	Intracellular nanosurgery and cell enucleation using a picosecond laser. Journal of Microscopy, 2009, 234, 1-8.	0.8	21
69	Microtubules and motor proteins: Mechanically regulated self-organization inÂvivo. European Physical Journal: Special Topics, 2009, 178, 57-69.	1.2	3
70	Growth Pattern of Single Fission Yeast Cells Is Bilinear and Depends on Temperature and DNA Synthesis. Biophysical Journal, 2009, 96, 4336-4347.	0.2	55
71	Push-me-pull-you: how microtubules organize the cell interior. European Biophysics Journal, 2008, 37, 1271-1278.	1.2	76
72	Versatile laserâ€based cell manipulator. Journal of Biophotonics, 2008, 1, 299-309.	1.1	20

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73	Association of mitochondria with spindle poles facilitates spindle alignment. Current Biology, 2008, 18, R646-R647.	1.8	20
74	Bundling, sliding, and pulling microtubules in cells and in silico. HFSP Journal, 2007, 1, 11-14.	2.5	0
75	Interphase Microtubules Determine the Initial Alignment of the Mitotic Spindle. Current Biology, 2007, 17, 438-444.	1.8	30
76	Optical micromanipulation inside the cell: a focus in cell division. , 2006, , .		0
77	tweezercalib 2.0: Faster version of MatLab package for precise calibration of optical tweezers. Computer Physics Communications, 2006, 174, 518-520.	3.0	49
78	tweezercalib 2.1: Faster version of MatLab package for precise calibration of optical tweezers. Computer Physics Communications, 2006, 175, 572-573.	3.0	42
79	Cell Imaging and Manipulation by Nonlinear Optical Microscopy. Cell Biochemistry and Biophysics, 2006, 45, 289-302.	0.9	11
80	Hypergravity speeds up the development of T-lymphocyte motility. European Biophysics Journal, 2006, 35, 393-400.	1.2	15
81	Nuclear and Division-Plane Positioning Revealed by Optical Micromanipulation. Current Biology, 2005, 15, 1212-1216.	1.8	85
82	Traction in smooth muscle cells varies with cell spreading. Journal of Biomechanics, 2005, 38, 1405-1412.	0.9	63
83	Laser nanosurgery and manipulation in living cells. , 2005, 5699, 313.		0
84	Optical micromanipulations inside yeast cells. Applied Optics, 2005, 44, 2001.	2.1	49
85	Combined intracellular three-dimensional imaging and selective nanosurgery by a nonlinear microscope. Journal of Biomedical Optics, 2005, 10, 014002.	1.4	93
86	Positioning and Elongation of the Fission Yeast Spindle by Microtubule-Based Pushing. Current Biology, 2004, 14, 1181-1186.	1.8	123
87	MatLab program for precision calibration of optical tweezers. Computer Physics Communications, 2004, 159, 225-240.	3.0	86
88	Anomalous Diffusion in Living Yeast Cells. Physical Review Letters, 2004, 93, 078102.	2.9	362
89	Traction fields, moments, and strain energy that cells exert on their surroundings. American Journal of Physiology - Cell Physiology, 2002, 282, C595-C605.	2.1	886
90	Cell prestress. II. Contribution of microtubules. American Journal of Physiology - Cell Physiology, 2002, 282, C617-C624.	2.1	190

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91	Cell prestress. I. Stiffness and prestress are closely associated in adherent contractile cells. American Journal of Physiology - Cell Physiology, 2002, 282, C606-C616.	2.1	591
92	Mechanical behavior in living cells consistent with the tensegrity model. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 7765-7770.	3.3	613
93	Modeling the Insulinâ€“Glucose Feedback System: The Significance of Pulsatile Insulin Secretion. Journal of Theoretical Biology, 2000, 207, 361-375.	0.8	176
94	Complexity of Molecules. Journal of Chemical Information and Computer Sciences, 2000, 40, 920-926.	2.8	31
95	Relaxation of interkinetochore tension after severing of a k-fiber depends on the length of the k-fiber stub. Matters Select, 0, , .	3.0	20
96	Coordinated Poleward Flux of Sister Kinetochore Fibers Drives Chromosome Alignment. SSRN Electronic Journal, 0, , .	0.4	1
97	Pivoting of Microtubules Driven by Minus End Directed Motors Leads to Their Alignment to Form an Interpolar Bundle. SSRN Electronic Journal, 0, , .	0.4	1
98	Two Functionally Redundant Sliding Modules Drive Chromosome Segregation. SSRN Electronic Journal, 0, , .	0.4	0