Frank Uhlmann

List of Publications by Year
in descending order

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121 papers	12,285 citations	26610 56 h-index	29127 104 g-index
129 all docs	129 docs citations	129 times ranked	6659 citing authors

#	Article	IF	Citations
1	Sister-chromatid separation at anaphase onset is promoted by cleavage of the cohesin subunit Scc1. Nature, 1999, 400, 37-42.	13.7	882
2	Cleavage of Cohesin by the CD Clan Protease Separin Triggers Anaphase in Yeast. Cell, 2000, 103, 375-386.	13.5	765
3	Cohesin relocation from sites of chromosomal loading to places of convergent transcription. Nature, 2004, 430, 573-578.	13.7	544
4	SMC complexes: from DNA to chromosomes. Nature Reviews Molecular Cell Biology, 2016, 17, 399-412.	16.1	455
5	Eco1-Dependent Cohesin Acetylation During Establishment of Sister Chromatid Cohesion. Science, 2008, 321, 563-566.	6.0	453
6	Cohesion between sister chromatids must be established during DNA replication. Current Biology, 1998, 8, 1095-1102.	1.8	431
7	Disjunction of Homologous Chromosomes in Meiosis I Depends on Proteolytic Cleavage of the Meiotic Cohesin Rec8 by Separin. Cell, 2000, 103, 387-398.	13.5	418
8	Splitting the Chromosome: Cutting the Ties That Bind Sister Chromatids. Science, 2000, 288, 1379-1384.	6.0	407
9	Phosphorylation of the Cohesin Subunit Scc1 by Polo/Cdc5 Kinase Regulates Sister Chromatid Separation in Yeast. Cell, 2001, 105, 459-472.	13.5	358
10	Identification of cis-acting sites for condensin loading onto budding yeast chromosomes. Genes and Development, 2008, 22, 2215-2227.	2.7	302
11	Biochemical reconstitution of topological DNA binding by the cohesin ring. Nature, 2014, 505, 367-371.	13.7	274
12	Establishment of Sister Chromatid Cohesion at the S. cerevisiae Replication Fork. Molecular Cell, 2006, 23, 787-799.	4.5	268
13	Degradation of a cohesin subunit by the N-end rule pathway is essential for chromosome stability. Nature, 2001, 410, 955-959.	13.7	264
14	Characterization of fission yeast cohesin: essential anaphase proteolysis of Rad21 phosphorylated in the S phase. Genes and Development, 2000, 14, 2757-2770.	2.7	256
15	Cdc14 Phosphatase Induces rDNA Condensation and Resolves Cohesin-Independent Cohesion during Budding Yeast Anaphase. Cell, 2004, 117, 471-482.	13.5	232
16	Downregulation of PP2ACdc55 Phosphatase by Separase Initiates Mitotic Exit in Budding Yeast. Cell, 2006, 125, 719-732.	13.5	230
17	DNA Entry into and Exit out of the Cohesin Ring by an Interlocking Gate Mechanism. Cell, 2015, 163, 1628-1640.	13.5	217
18	Rapid movement and transcriptional reâ€localization of human cohesin on DNA. EMBO Journal, 2016, 35, 2671-2685.	3.5	216

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19	A Model for ATP Hydrolysis-Dependent Binding of Cohesin to DNA. Current Biology, 2003, 13, 1930-1940.	1.8	191
20	Stabilization of microtubule dynamics at anaphase onset promotes chromosome segregation. Nature, 2005, 433, 171-176.	13.7	160
21	A non-proteolytic function of separase links the onset of anaphase to mitotic exit. Nature Cell Biology, 2003, 5, 249-254.	4.6	151
22	Orchestrating anaphase and mitotic exit: separase cleavage and localization of Slk19. Nature Cell Biology, 2001, 3, 771-777.	4.6	134
23	Deletion Analysis of the Large Subunit p140 in Human Replication Factor C Reveals Regions Required for Complex Formation and Replication Activities. Journal of Biological Chemistry, 1997, 272, 10058-10064.	1.6	131
24	The Dual Mechanism of Separase Regulation by Securin. Current Biology, 2002, 12, 973-982.	1.8	131
25	Cdk-counteracting phosphatases unlock mitotic exit. Current Opinion in Cell Biology, 2008, 20, 661-668.	2.6	119
26	A mechanism for chromosome segregation sensing by the NoCut checkpoint. Nature Cell Biology, 2009, 11, 477-483.	4.6	118
27	Establishment of DNA-DNA Interactions by the Cohesin Ring. Cell, 2018, 172, 465-477.e15.	13.5	116
28	Division of the Nucleolus and Its Release of CDC14 during Anaphase of Meiosis I Depends on Separase, SPO12, and SLK19. Developmental Cell, 2003, 4, 727-739.	3.1	115
29	Budding Yeast Wapl Controls Sister Chromatid Cohesion Maintenance and Chromosome Condensation. Current Biology, 2013, 23, 64-69.	1.8	114
30	The Scc2â€“Scc4 complex acts in sister chromatid cohesion and transcriptional regulation by maintaining nucleosome-free regions. Nature Genetics, 2014, 46, 1147-1151.	9.4	114
31	Ctf4 Links DNA Replication with Sister Chromatid Cohesion Establishment by Recruiting the Chl1 Helicase to the Replisome. Molecular Cell, 2016, 63, 371-384.	4.5	113
32	A Quantitative Model for Ordered Cdk Substrate Dephosphorylation during Mitotic Exit. Cell, 2011, 147, 803-814.	13.5	112
33	A Structure-Based Mechanism for DNA Entry into the Cohesin Ring. Molecular Cell, 2020, 79, 917-933.e9.	4.5	112
34	Hos1 Deacetylates Smc3 to Close the Cohesin Acetylation Cycle. Molecular Cell, 2010, 39, 677-688.	4.5	109
35	Chromosome Cohesion and Separation: From Men and Molecules. Current Biology, 2003, 13, R104-R114.	1.8	100
36	Bridging-induced phase separation induced by cohesin SMC protein complexes. Science Advances, 2021, 7, .	4.7	95

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37	In vivo analysis of cohesin architecture using FRET in the budding yeast Saccharomyces cerevisiae. EMBO Journal, 2007, 26, 3783-3793.	3.5	92
38	Irreversibility of mitotic exit is the consequence of systems-level feedback. Nature, 2009, 459, 592-595.	13.7	91
39	PP2A Cdc55 Phosphatase Imposes Ordered Cell-Cycle Phosphorylation by Opposing Threonine Phosphorylation. Molecular Cell, 2017, 65, 393-402.e3.	4.5	91
40	A Complex Consisting of Human Replication Factor C p40, p37, and p36 Subunits Is a DNA-dependent ATPase and an Intermediate in the Assembly of the Holoenzyme. Journal of Biological Chemistry, 1997, 272, 18974-18981.	1.6	89
41	A simple biophysical model emulates budding yeast chromosome condensation. ELife, 2015, 4, e05565.	2.8	87
42	Condensin, Chromatin Crossbarring and Chromosome Condensation. Current Biology, 2012, 22, R1012-R1021.	1.8	83
43	Preferential cleavage of chromatin-bound cohesin after targeted phosphorylation by Polo-like kinase. EMBO Journal, 2004, 23, 3144-3153.	3.5	82
44	The mechanism of sister chromatid cohesion. Experimental Cell Research, 2004, 296, 80-85.	1.2	79
45	Sli15INCENP Dephosphorylation Prevents Mitotic Checkpoint Reengagement Due to Loss of Tension at Anaphase Onset. Current Biology, 2010, 20, 1396-1401.	1.8	77
46	A quantitative model for cyclin-dependent kinase control of the cell cycle: revisited. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3572-3583.	1.8	77
47	An Eco1-independent sister chromatid cohesion establishment pathway in S. cerevisiae. Chromosoma, 2013, 122, 121-134.	1.0	76
48	Condensin-mediated remodeling of the mitotic chromatin landscape in fission yeast. Nature Genetics, 2017, 49, 1553-1557.	9.4	75
49	Identification of Regions within the Four Small Subunits of Human Replication Factor C Required for Complex Formation and DNA Replication. Journal of Biological Chemistry, 1997, 272, 10065-10071.	1.6	74
50	Secured cutting: controlling separase at the metaphase to anaphase transition. EMBO Reports, 2001, 2, 487-492.	2.0	72
51	Chromosome cohesion and segregation in mitosis and meiosis. Current Opinion in Cell Biology, 2001, 13, 754-761.	2.6	71
52	Conserved features of cohesin binding along fission yeast chromosomes. Genome Biology, 2009, 10, R52.	13.9	71
53	Condensin aids sister chromatid decatenation by topoisomerase II. Nucleic Acids Research, 2014, 42, 340-348.	6.5	68
54	Cloning and characterization of promoter and 5â€²-UTR of the NMDA receptor subunit Ïµ2: evidence for alternative splicing of 5â€²-non-coding exon. Gene, 1998, 208, 259-269.	1.0	66

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55	Condensin-Dependent rDNA Decatenation Introduces a Temporal Pattern to Chromosome Segregation. Current Biology, 2008, 18, 1084-1089.	1.8	65
56	Cell-cycle regulation of cohesin stability along fission yeast chromosomes. EMBO Journal, 2008, 27, 111-121.	3.5	64
57	A Role for Chromatin Remodeling in Cohesin Loading onto Chromosomes. Molecular Cell, 2019, 74, 664-673.e5.	4.5	62
58	Separase cooperates with Zds1 and Zds2 to activate Cdc14 phosphatase in early anaphase. Journal of Cell Biology, 2008, 182, 873-883.	2.3	61
59	Cohesin loading and sliding. Journal of Cell Science, 2011, 124, 685-691.	1.2	60
60	Structural Studies Reveal the Functional Modularity of the Scc2-Scc4 Cohesin Loader. Cell Reports, 2015, 12, 719-725.	2.9	60
61	Evidence for cohesin sliding along budding yeast chromosomes. Open Biology, 2016, 6, 150178.	1.5	60
62	Identification of <scp>C</scp> dk targets that control cytokinesis. EMBO Journal, 2015, 34, 81-96.	3.5	56
63	A Brownian ratchet model for DNA loop extrusion by the cohesin complex. ELife, 2021, 10, .	2.8	56
64	System-level feedbacks make the anaphase switch irreversible. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10016-10021.	3.3	55
65	Studies on Substrate Recognition by the Budding Yeast Separase. Journal of Biological Chemistry, 2004, 279, 1191-1196.	1.6	51
66	Structure of the cohesin loader Scc2. Nature Communications, 2017, 8, 13952.	5.8	49
67	Topological in vitro loading of the budding yeast cohesin ring onto DNA. Life Science Alliance, 2018, 1, e201800143.	1.3	49
68	Phosphoproteome dynamics during mitotic exit in budding yeast. EMBO Journal, 2018, 37, .	3.5	47
69	Division of Labor between PCNA Loaders in DNA Replication and Sister Chromatid Cohesion Establishment. Molecular Cell, 2020, 78, 725-738.e4.	4.5	45
70	Cell cycle regulation by feedâ€forward loops coupling transcription and phosphorylation. Molecular Systems Biology, 2009, 5, 236.	3.2	44
71	A matter of choice: the establishment of sister chromatid cohesion. EMBO Reports, 2009, 10, 1095-1102.	2.0	44
72	Displacement and re-accumulation of centromeric cohesin during transient pre-anaphase centromere splitting. Chromosoma, 2007, 116, 531-544.	1.0	42

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73	SMC complexes orchestrate the mitotic chromatin interaction landscape. Current Genetics, 2018, 64, 335-339.	0.8	41
74	Cdc14 and PP2A Phosphatases Cooperate to Shape Phosphoproteome Dynamics during Mitotic Exit. Cell Reports, 2019, 29, 2105-2119.e4.	2.9	40
75	Systemâ€level feedbacks control cell cycle progression. FEBS Letters, 2009, 583, 3992-3998.	1.3	38
76	A PxL motif promotes timely cell cycle substrate dephosphorylation by the Cdc14 phosphatase. Nature Structural and Molecular Biology, 2018, 25, 1093-1102.	3.6	31
77	SMC complexes: Lifting the lid on loop extrusion. Current Opinion in Cell Biology, 2022, 74, 13-22.	2.6	30
78	Facile synthesis of budding yeast aâ€factor and its use to synchronize cells of Î± mating type. Yeast, 2012, 29, 233-240.	0.8	27
79	Comparison of loop extrusion and diffusion capture as mitotic chromosome formation pathways in fission yeast. Nucleic Acids Research, 2021, 49, 1294-1312.	6.5	27
80	Separase regulation during mitosis. Biochemical Society Symposia, 2003, 70, 243-251.	2.7	26
81	Passenger acrobatics. Nature, 2003, 426, 780-781.	13.7	25
82	Computational modelling of mitotic exit in budding yeast: the role of separase and Cdc14 endocycles. Journal of the Royal Society Interface, 2011, 8, 1128-1141.	1.5	24
83	Cell-Cycle Regulation of Dynamic Chromosome Association of the Condensin Complex. Cell Reports, 2018, 23, 2308-2317.	2.9	24
84	Mitotic exit in two dimensions. Journal of Theoretical Biology, 2007, 248, 560-573.	0.8	21
85	Structural studies of <scp>RFC^C</scp>^{tf18} reveal a novel chromatin recruitment role for Dcc1. EMBO Reports, 2017, 18, 558-568.	2.0	19
86	Fission yeast condensin contributes to interphase chromatin organization and prevents transcription-coupled DNA damage. Genome Biology, 2020, 21, 272.	3.8	19
87	Budding yeast relies on G ₁ cyclin specificity to couple cell cycle progression with morphogenetic development. Science Advances, 2021, 7, .	4.7	16
88	Chromosome condensation: Packaging the genome. Current Biology, 2001, 11, R384-R387.	1.8	15
89	Chromosome Segregation. Developmental Cell, 2002, 2, 381-382.	3.1	15
90	Cohesin branches out. Nature, 2008, 451, 777-778.	13.7	15

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91	Mitotic exit in mammalian cells. Molecular Systems Biology, 2009, 5, 324.	3.2	15
92	Cohesion, but not too close. Current Biology, 2001, 11, R378.	1.8	14
93	The â€˜anaphase problemâ€™: how to disable the mitotic checkpoint when sisters split. Biochemical Society Transactions, 2010, 38, 1660-1666.	1.6	14
94	Observation of DNA intertwining along authentic budding yeast chromosomes. Genes and Development, 2017, 31, 2151-2161.	2.7	12
95	The Cks1/Cks2 axis fine-tunes Mll1 expression and is crucial for MLL-rearranged leukaemia cell viability. Biochimica Et Biophysica Acta - Molecular Cell Research, 2018, 1865, 105-116.	1.9	12
96	Conserved roles of chromatin remodellers in cohesin loading onto chromatin. Current Genetics, 2020, 66, 951-956.	0.8	12
97	A global view of substrate phosphorylation and dephosphorylation during budding yeast mitotic exit. Microbial Cell, 2018, 5, 389-392.	1.4	12
98	More than a separase. Nature Cell Biology, 2005, 7, 930-932.	4.6	11
99	Mediator recruits the cohesin loader Scc2 to RNA Pol II-transcribed genes and promotes sister chromatid cohesion. Current Biology, 2022, 32, 2884-2896.e6.	1.8	11
100	Structural Basis of Eco1-Mediated Cohesin Acetylation. Scientific Reports, 2017, 7, 44313.	1.6	10
101	Chromosome cohesion: A polymerase for chromosome bridges. Current Biology, 2000, 10, R698-R700.	1.8	9
102	Chromosome Biology: The Crux of the Ring. Current Biology, 2006, 16, R102-R105.	1.8	8
103	Cohesin subunit Rad21L, the new kid on the block has new ideas. EMBO Reports, 2011, 12, 183-184.	2.0	8
104	Open questions: Chromosome condensation - Why does a chromosome look like a chromosome?. BMC Biology, 2013, 11, 9.	1.7	7
105	Assessing Budding Yeast Phosphoproteome Dynamics in a Time-Resolved Manner using TMT10plex Mass Tag Labeling. STAR Protocols, 2020, 1, 100022.	0.5	7
106	Cell Cycle: The Art of Multi-Tasking. Current Biology, 2010, 20, R101-R103.	1.8	6
107	Nur1 Dephosphorylation Confers Positive Feedback to Mitotic Exit Phosphatase Activation in Budding Yeast. PLoS Genetics, 2015, 11, e1004907.	1.5	6
108	What is your assay for sister-chromatid cohesion?. EMBO Journal, 2007, 26, 4609-4618.	3.5	5

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109	Chromosome segregation: how to open cohesin without cutting the ring?. EMBO Journal, 2013, 32, 614-616.	3.5	4
110	A silent revolution in chromosome biology. Nature Reviews Molecular Cell Biology, 2014, 15, 431-431.	16.1	4
111	Separaseâ€“securin complex: a cunning way to control chromosome segregation. Nature Structural and Molecular Biology, 2017, 24, 337-339.	3.6	4
112	An In Vitro Assay for Monitoring Topological DNA Entrapment by the Chromosomal Cohesin Complex. Methods in Molecular Biology, 2017, 1515, 23-35.	0.4	4
113	Efficient Depletion of Fission Yeast Condensin by Combined Transcriptional Repression and Auxin-Induced Degradation. Methods in Molecular Biology, 2019, 2004, 25-33.	0.4	4
114	Keeping the genome in shape. Nature, 2002, 417, 135-136.	13.7	3
115	A role for condensin in mediating transcriptional adaptation to environmental stimuli. Life Science Alliance, 2021, 4, e202000961.	1.3	3
116	ESCRTing DNA at the Cleavage Site During Cytokinesis. Science, 2012, 336, 166-167.	6.0	2
117	Chromosome Condensation: Weaving an UntangledÂWeb. Current Biology, 2015, 25, R663-R666.	1.8	2
118	Building chromosomes without bricks. Science, 2017, 356, 1233-1234.	6.0	2
119	Divide and die another day. Current Opinion in Cell Biology, 2010, 22, 764-765.	2.6	0
120	Analysis of Cell Cycle Progression in the Budding Yeast S. cerevisiae. Methods in Molecular Biology, 2021, 2329, 265-276.	0.4	0
121	Structural characterisation of the Chaetomium thermophilum Chl1 helicase. PLoS ONE, 2021, 16, e0251261.	1.1	0