Hans-Peter Herzel

List of Publications by Year
in descending order

95 papers	6,366 citations	76326 40 h-index	74163 75 g-index
107 all docs	107 docs citations	107 times ranked	5596 citing authors

#	Article	IF	Citations
1	Venn diagram analysis overestimates the extent of circadian rhythm reprogramming. FEBS Journal, 2022, 289, 6605-6621.	4.7	40
2	Synergies of Multiple Zeitgebers Tune Entrainment. Frontiers in Network Physiology, 2022, 1, .	1.8	7
3	Mathematical modelling identifies conditions for maintaining and escaping feedback control in the intestinal epithelium. Scientific Reports, 2022, 12, 5569.	3.3	6
4	Mathematical Modeling in Circadian Rhythmicity. Methods in Molecular Biology, 2022, , 55-80.	0.9	4
5	Circadian rhythms in septic shock patients. Annals of Intensive Care, 2021, 11, 64.	4.6	22
6	Live-cell imaging of circadian clock protein dynamics in CRISPR-generated knock-in cells. Nature Communications, 2021, 12, 3796.	12.8	42
7	Intercellular coupling between peripheral circadian oscillators by TGF-Î^2 signaling. Science Advances, 2021, 7, .	10.3	37
8	Searching Novel Clock Genes Using RNAi-Based Screening. Methods in Molecular Biology, 2021, 2130, 103-114.	0.9	11
9	Principles underlying the complex dynamics of temperature entrainment by a circadian clock. IScience, 2021, 24, 103370.	4.1	12
10	Simple Kinetic Models in Molecular Chronobiology. Methods in Molecular Biology, 2021, 2130, 87-100.	0.9	1
11	NeitherÂper, nor tim1, nor cry2 alone are essential components of the molecular circadian clockwork in the Madeira cockroach. PLoS ONE, 2020, 15, e0235930.	2.5	3
12	Nonlinear phenomena in models of the circadian clock. Journal of the Royal Society Interface, 2020, 17, 20200556.	3.4	12
13	Conceptual Models of Entrainment, Jet Lag, and Seasonality. Frontiers in Physiology, 2020, 11, 334.	2.8	15
14	Amplitude Effects Allow Short Jet Lags and Large Seasonal Phase Shifts in Minimal Clock Models. Journal of Molecular Biology, 2020, 432, 3722-3737.	4.2	31
15	Clocks in the Wild: Entrainment to Natural Light. Frontiers in Physiology, 2020, 11, 272.	2.8	33
16	Multiple random phosphorylations in clock proteins provide long delays and switches. Scientific Reports, 2020, 10, 22224.	3.3	9
17	An Inactivation Switch Enables Rhythms in a Neurospora Clock Model. International Journal of Molecular Sciences, 2019, 20, 2985.	4.1	15
18	Beyond spikes: Multiscale computational analysis of<i>in vivo</i>long-term recordings in the cockroach circadian clock. Network Neuroscience, 2019, 3, 944-968.	2.6	6

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19	Weak coupling between intracellular feedback loops explains dissociation of clock gene dynamics. PLoS Computational Biology, 2019, 15, e1007330.	3.2	19
20	A Robust Model for Circadian Redox Oscillations. International Journal of Molecular Sciences, 2019, 20, 2368.	4.1	18
21	The choroid plexus is an important circadian clock component. Nature Communications, 2018, 9, 1062.	12.8	118
22	Measuring Relative Coupling Strength in Circadian Systems. Journal of Biological Rhythms, 2018, 33, 84-98.	2.6	43
23	Ultradian Rhythms in the Transcriptome of Neurospora crassa. IScience, 2018, 9, 475-486.	4.1	15
24	Coherency of circadian rhythms in the SCN is governed by the interplay of two coupling factors. PLoS Computational Biology, 2018, 14, e1006607.	3.2	13
25	High-accuracy determination of internal circadian time from a single blood sample. Journal of Clinical Investigation, 2018, 128, 3826-3839.	8.2	174
26	Quantitative analysis of circadian single cell oscillations in response to temperature. PLoS ONE, 2018, 13, e0190004.	2.5	11
27	Co-existing feedback loops generate tissue-specific circadian rhythms. Life Science Alliance, 2018, 1, e201800078.	2.8	55
28	Lymphocyte Circadian Clocks Control Lymph Node Trafficking and Adaptive Immune Responses. Immunity, 2017, 46, 120-132.	14.3	324
29	Moranâ€™s <i>I</i> quantifies spatio-temporal pattern formation in neural imaging data. Bioinformatics, 2017, 33, 3072-3079.	4.1	30
30	Guidelines for Genome-Scale Analysis of Biological Rhythms. Journal of Biological Rhythms, 2017, 32, 380-393.	2.6	237
31	Excitability in the p53 network mediates robust signaling with tunable activation thresholds in single cells. Scientific Reports, 2017, 7, 46571.	3.3	37
32	Feedback Loops of the Mammalian Circadian Clock Constitute Repressilator. PLoS Computational Biology, 2016, 12, e1005266.	3.2	75
33	Identification of Novel Nuclear Factor of Activated T Cell (NFAT)-associated Proteins in T Cells. Journal of Biological Chemistry, 2016, 291, 24172-24187.	3.4	51
34	Phasegram Analysis of Vocal Fold Vibration Documented With Laryngeal High-speed Video Endoscopy. Journal of Voice, 2016, 30, 771.e1-771.e15.	1.5	12
35	Adequate immune response ensured by binary IL-2 and graded CD25 expression in a murine transfer model. ELife, 2016, 5, .	6.0	11
36	Transcription factor coâ€occupied regions in the murine genome constitute Tâ€helperâ€cell subtypeâ€specific enhancers. European Journal of Immunology, 2015, 45, 3150-3157.	2.9	13

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37	A Theoretical Study on Seasonality. Frontiers in Neurology, 2015, 6, 94.	2.4	50
38	Assembly of a Comprehensive Regulatory Network for the Mammalian Circadian Clock: A Bioinformatics Approach. PLoS ONE, 2015, 10, e0126283.	2.5	43
39	Mining for novel candidate clock genes in the circadian regulatory network. BMC Systems Biology, 2015, 9, 78.	3.0	12
40	Tuning the phase of circadian entrainment. Journal of the Royal Society Interface, 2015, 12, 20150282.	3.4	85
41	Coupling Controls the Synchrony of Clock Cells in Development and Knockouts. Biophysical Journal, 2015, 109, 2159-2170.	0.5	22
42	Positive Feedback Promotes Oscillations in Negative Feedback Loops. PLoS ONE, 2014, 9, e104761.	2.5	74
43	Timing of Neuropeptide Coupling Determines Synchrony and Entrainment in the Mammalian Circadian Clock. PLoS Computational Biology, 2014, 10, e1003565.	3.2	38
44	Ras-Mediated Deregulation of the Circadian Clock in Cancer. PLoS Genetics, 2014, 10, e1004338.	3.5	140
45	The structural code of cyanobacterial genomes. Nucleic Acids Research, 2014, 42, 8873-8883.	14.5	11
46	Elucidating the adaptation and temporal coordination of metabolic pathways using in-silico evolution. BioSystems, 2014, 117, 68-76.	2.0	10
47	Gating Characteristics Control Glutamate Receptor Distribution and Trafficking InÂVivo. Current Biology, 2014, 24, 2059-2065.	3.9	20
48	Timing of circadian genes in mammalian tissues. Scientific Reports, 2014, 4, 5782.	3.3	97
49	Mechanism for 12 Hr Rhythm Generation by the Circadian Clock. Cell Reports, 2013, 3, 1228-1238.	6.4	78
50	Human Chronotypes from a Theoretical Perspective. PLoS ONE, 2013, 8, e59464.	2.5	92
51	Stable IL-2 Decision Making by Endogenous c-Fos Amounts in Peripheral Memory T-helper Cells. Journal of Biological Chemistry, 2012, 287, 18386-18397.	3.4	10
52	The Interplay of cis-Regulatory Elements Rules Circadian Rhythms in Mouse Liver. PLoS ONE, 2012, 7, e46835.	2.5	68
53	Regulation of mammalian cell cycle progression in the regenerating liver. Journal of Theoretical Biology, 2011, 283, 103-112.	1.7	28
54	Tuning the Mammalian Circadian Clock: Robust Synergy of Two Loops. PLoS Computational Biology, 2011, 7, e1002309.	3.2	179

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55	Coupling governs entrainment range of circadian clocks. Molecular Systems Biology, 2010, 6, 438.	7.2	297
56	PREDICTION OF REGULATORY TRANSCRIPTION FACTORS IN T HELPER CELL DIFFERENTIATION AND MAINTENANCE. , 2010, , .		2
57	Quantification of Circadian Rhythms in Single Cells. PLoS Computational Biology, 2009, 5, e1000580.	3.2	88
58	Regulation of Clock-Controlled Genes in Mammals. PLoS ONE, 2009, 4, e4882.	2.5	251
59	A mesoscale model of G1/S phase transition in liver regeneration. Journal of Theoretical Biology, 2008, 252, 465-473.	1.7	10
60	Global parameter search reveals design principles of the mammalian circadian clock. BMC Systems Biology, 2008, 2, 22.	3.0	82
61	MODELING IL-2 GENE EXPRESSION IN HUMAN REGULATORY T CELLS. , 2008, , .		1
62	Modeling IL-2 gene expression in human regulatory T cells. Genome Informatics, 2008, 20, 222-30.	0.4	1
63	Synchronization-Induced Rhythmicity of Circadian Oscillators in the Suprachiasmatic Nucleus. PLoS Computational Biology, 2007, 3, e68.	3.2	184
64	Functioning and robustness of a bacterial circadian clock. Molecular Systems Biology, 2007, 3, 90.	7.2	83
65	Flexible web-based integration of distributed large-scale human protein interaction maps. Journal of Integrative Bioinformatics, 2007, 4, 40-50.	1.5	3
66	Functional and Transcriptional Coherency of Modules in the Human Protein Interaction Network. Journal of Integrative Bioinformatics, 2007, 4, 198-207.	1.5	3
67	Competing Docking Interactions can Bring About Bistability in the MAPK Cascade. Biophysical Journal, 2007, 93, 2279-2288.	0.5	78
68	GRAPH-THEORETICAL COMPARISON REVEALS STRUCTURAL DIVERGENCE OF HUMAN PROTEIN INTERACTION NETWORKS. , 2007, , .		5
69	Modelling transcriptional feedback loops: the role of Gro/TLE1 in Hes1 oscillations. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 1155-1170.	3.4	83
70	Effects of sequestration on signal transduction cascades. FEBS Journal, 2006, 273, 895-906.	4.7	148
71	Death of neuronal clusters contributes to variance of age at onset in Huntingtonâ€™s disease. Neurogenetics, 2006, 7, 21-25.	1.4	4
72	Mathematical Modeling Identifies Inhibitors of Apoptosis as Mediators of Positive Feedback and Bistability. PLoS Computational Biology, 2006, 2, e120.	3.2	217

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73	Differential effects of PER2 phosphorylation: molecular basis for the human familial advanced sleep phase syndrome (FASPS). Genes and Development, 2006, 20, 2660-2672.	5.9	339
74	Robustness: A Key to Evolutionary Design. Biological Theory, 2006, 1, 90-93.	1.5	26
75	Quantitative analysis of ultrasensitive responses. FEBS Journal, 2005, 272, 4071-4079.	4.7	49
76	Ultrasensitization: Switch-Like Regulation of Cellular Signaling by Transcriptional Induction. PLoS Computational Biology, 2005, 1, e54.	3.2	28
77	Spontaneous Synchronization of Coupled Circadian Oscillators. Biophysical Journal, 2005, 89, 120-129.	0.5	401
78	Bifurcation analysis of the regulatory modules of the mammalian G1/S transition. Bioinformatics, 2004, 20, 1506-1511.	4.1	125
79	High reproducibility of large-gel two-dimensional electrophoresis. Electrophoresis, 2004, 25, 3040-3047.	2.4	56
80	Modeling Feedback Loops of the Mammalian Circadian Oscillator. Biophysical Journal, 2004, 87, 3023-3034.	0.5	151
81	Periodicities of 10â€"11bp as Indicators of the Supercoiled State of Genomic DNA. Journal of Molecular Biology, 2004, 343, 891-901.	4.2	47
82	SPOTTED HYAENA WHOOPS: FREQUENT INCIDENCE OF VOCAL INSTABILITIES IN A MAMMALIAN LOUD CALL. Bioacoustics, 2004, 14, 99-109.	1.7	8
83	Statistical analysis of the DNA sequence of human chromosome 22. Physical Review E, 2001, 64, 041917.	2.1	53
84	Spatio-temporal analysis of irregular vocal fold oscillations: Biphonation due to desynchronization of spatial modes. Journal of the Acoustical Society of America, 2001, 110, 3179-3192.	1.1	114
85	Extracting information from cDNA arrays. Chaos, 2001, 11, 98.	2.5	23
86	Are Noncoding Sequences of Rickettsia prowazekii Remnants of ``Neutralized'' Genes?. Journal of Molecular Evolution, 2000, 51, 353-362.	1.8	19
87	Species independence of mutual information in coding and noncoding DNA. Physical Review E, 2000, 61, 5624-5629.	2.1	120
88	Modeling the role of nonhuman vocal membranes in phonation. Journal of the Acoustical Society of America, 1999, 105, 2020-2028.	1.1	83
89	AVERAGE MUTUAL INFORMATION OF CODING AND NONCODING DNA. , 1999, , 614-23.		12
90	Correlations in Protein Sequences and Property Codes. Journal of Theoretical Biology, 1998, 190, 341-353.	1.7	60

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91	Phonation onset: Vocal fold modeling and high-speed glottography. Journal of the Acoustical Society of America, 1998, 104, 464-470.	1.1	42
92	Sequence Periodicity in Complete Genomes of Archaea Suggests Positive Supercoiling. Journal of Biomolecular Structure and Dynamics, 1998, 16, 341-345.	3.5	37
93	How to Quantify 'Small-World Networks'?. Fractals, 1998, 06, 301-303.	3.7	14
94	Correlations in DNA sequences: The role of protein coding segments. Physical Review E, 1997, 55, 800-810.	2.1	98
95	Bifurcations in an asymmetric vocalâ€fold model. Journal of the Acoustical Society of America, 1995, 97, 1874-1884.	1.1	286