Hanspeter Herzel

List of Publications by Year
in descending order

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88 papers	7,576 citations	47006 47 h-index	54911 84 g-index
98 all docs	98 docs citations	98 times ranked	6048 citing authors

#	ARTICLE	IF	CITATIONS
1	Synergies of Multiple Zeitgebers Tune Entrainment. Frontiers in Network Physiology, 2022, 1, .	1.8	7
2	Mathematical Modeling in Circadian Rhythmicity. Methods in Molecular Biology, 2022, , 55-80.	0.9	4
3	Intercellular coupling between peripheral circadian oscillators by TGF-Î² signaling. Science Advances, 2021, 7, .	10.3	37
4	Principles underlying the complex dynamics of temperature entrainment by a circadian clock. IScience, 2021, 24, 103370.	4.1	12
5	Simple Kinetic Models in Molecular Chronobiology. Methods in Molecular Biology, 2021, 2130, 87-100.	0.9	1
6	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
7	Nonlinear phenomena in models of the circadian clock. Journal of the Royal Society Interface, 2020, 17, 20200556.	3.4	12
8	Conceptual Models of Entrainment, Jet Lag, and Seasonality. Frontiers in Physiology, 2020, 11, 334.	2.8	15
9	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
10	Clocks in the Wild: Entrainment to Natural Light. Frontiers in Physiology, 2020, 11, 272.	2.8	33
11	Multiple random phosphorylations in clock proteins provide long delays and switches. Scientific Reports, 2020, 10, 22224.	3.3	9
12	An Inactivation Switch Enables Rhythms in a Neurospora Clock Model. International Journal of Molecular Sciences, 2019, 20, 2985.	4.1	15
13	A Robust Model for Circadian Redox Oscillations. International Journal of Molecular Sciences, 2019, 20, 2368.	4.1	18
14	The choroid plexus is an important circadian clock component. Nature Communications, 2018, 9, 1062.	12.8	118
15	Measuring Relative Coupling Strength in Circadian Systems. Journal of Biological Rhythms, 2018, 33, 84-98.	2.6	43
16	Information Transfer in the Mammalian Circadian Clock. Lecture Notes in Bioengineering, 2018, , 247-257.	0.4	0
17	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
18	Quantitative analysis of circadian single cell oscillations in response to temperature. PLoS ONE, 2018, 13, e0190004.	2.5	11

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19	Co-existing feedback loops generate tissue-specific circadian rhythms. Life Science Alliance, 2018, 1, e201800078.	2.8	55
20	Feedback Loops of the Mammalian Circadian Clock Constitute Repressilator. PLoS Computational Biology, 2016, 12, e1005266.	3.2	75
21	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
22	A Theoretical Study on Seasonality. Frontiers in Neurology, 2015, 6, 94.	2.4	50
23	Assembly of a Comprehensive Regulatory Network for the Mammalian Circadian Clock: A Bioinformatics Approach. PLoS ONE, 2015, 10, e0126283.	2.5	43
24	Tuning the phase of circadian entrainment. Journal of the Royal Society Interface, 2015, 12, 20150282.	3.4	85
25	Coupling Controls the Synchrony of Clock Cells in Development and Knockouts. Biophysical Journal, 2015, 109, 2159-2170.	0.5	22
26	Positive Feedback Promotes Oscillations in Negative Feedback Loops. PLoS ONE, 2014, 9, e104761.	2.5	74
27	Timing of Neuropeptide Coupling Determines Synchrony and Entrainment in the Mammalian Circadian Clock. PLoS Computational Biology, 2014, 10, e1003565.	3.2	38
28	Ras-Mediated Deregulation of the Circadian Clock in Cancer. PLoS Genetics, 2014, 10, e1004338.	3.5	140
29	Timing of circadian genes in mammalian tissues. Scientific Reports, 2014, 4, 5782.	3.3	97
30	Visualization of system dynamics using phasegrams. Journal of the Royal Society Interface, 2013, 10, 20130288.	3.4	30
31	Human Chronotypes from a Theoretical Perspective. PLoS ONE, 2013, 8, e59464.	2.5	92
32	The Interplay of cis-Regulatory Elements Rules Circadian Rhythms in Mouse Liver. PLoS ONE, 2012, 7, e46835.	2.5	68
33	Analysing and Understanding the Singing Voice: Recent Progress and Open Questions. Current Bioinformatics, 2011, 6, 362-374.	1.5	31
34	Tuning the Mammalian Circadian Clock: Robust Synergy of Two Loops. PLoS Computational Biology, 2011, 7, e1002309.	3.2	179
35	Coupling governs entrainment range of circadian clocks. Molecular Systems Biology, 2010, 6, 438.	7.2	297
36	Tumor Growth Rate Determines the Timing of Optimal Chronomodulated Treatment Schedules. PLoS Computational Biology, 2010, 6, e1000712.	3.2	45

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37	Identification of Y-Box Binding Protein 1 As a Core Regulator of MEK/ERK Pathway-Dependent Gene Signatures in Colorectal Cancer Cells. PLoS Genetics, 2010, 6, e1001231.	3.5	80
38	Biomechanical modeling of register transitions and the role of vocal tract resonators. Journal of the Acoustical Society of America, 2010, 127, 1528-1536.	1.1	44
39	How to Achieve Fast Entrainment? The Timescale to Synchronization. PLoS ONE, 2009, 4, e7057.	2.5	56
40	Quantification of Circadian Rhythms in Single Cells. PLoS Computational Biology, 2009, 5, e1000580.	3.2	88
41	Regulation of Clock-Controlled Genes in Mammals. PLoS ONE, 2009, 4, e4882.	2.5	251
42	Molecular insights into human daily behavior. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1602-1607.	7.1	238
43	Global parameter search reveals design principles of the mammalian circadian clock. BMC Systems Biology, 2008, 2, 22.	3.0	82
44	Small RNAs Establish Delays and Temporal Thresholds in Gene Expression. Biophysical Journal, 2008, 95, 3232-3238.	0.5	72
45	Biomechanics and control of vocalization in a non-songbird. Journal of the Royal Society Interface, 2008, 5, 691-703.	3.4	37
46	Bifurcations and chaos in register transitions of excised larynx experiments. Chaos, 2008, 18, 013102.	2.5	23
47	Î²-TrCP1-Mediated Degradation of PERIOD2 Is Essential for Circadian Dynamics. Journal of Biological Rhythms, 2007, 22, 375-386.	2.6	156
48	Comparison of biomechanical modeling of register transitions and voice instabilities with excised larynx experiments. Journal of the Acoustical Society of America, 2007, 122, 519-531.	1.1	63
49	Synchronization-Induced Rhythmicity of Circadian Oscillators in the Suprachiasmatic Nucleus. PLoS Computational Biology, 2007, 3, e68.	3.2	184
50	Functioning and robustness of a bacterial circadian clock. Molecular Systems Biology, 2007, 3, 90.	7.2	83
51	Competing Docking Interactions can Bring About Bistability in the MAPK Cascade. Biophysical Journal, 2007, 93, 2279-2288.	0.5	78
52	Promoter analysis of Mammalian clock controlled genes. Genome Informatics, 2007, 18, 65-74.	0.4	16
53	Mathematical Modeling Identifies Inhibitors of Apoptosis as Mediators of Positive Feedback and Bistability. PLoS Computational Biology, 2006, 2, e120.	3.2	217
54	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

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55	Measuring similarities between transcription factor binding sites. BMC Bioinformatics, 2005, 6, 237.	2.6	55
56	Detecting synchronizations in an asymmetric vocal fold model from time series data. Chaos, 2005, 15, 013702.	2.5	26
57	Spontaneous Synchronization of Coupled Circadian Oscillators. Biophysical Journal, 2005, 89, 120-129.	0.5	401
58	Biological profiling of gene groups utilizing Gene Ontology. Genome Informatics, 2005, 16, 106-15.	0.4	141
59	Modeling Feedback Loops of the Mammalian Circadian Oscillator. Biophysical Journal, 2004, 87, 3023-3034.	0.5	151
60	Periodicities of 10â€"11bp as Indicators of the Supercoiled State of Genomic DNA. Journal of Molecular Biology, 2004, 343, 891-901.	4.2	47
61	SPOTTED HYAENA WHOOPS: FREQUENT INCIDENCE OF VOCAL INSTABILITIES IN A MAMMALIAN LOUD CALL. Bioacoustics, 2004, 14, 99-109.	1.7	8
62	Nonlinear phenomena in contemporary vocal music. Journal of Voice, 2004, 18, 1-12.	1.5	44
63	Optimizing Property Codes in Protein Data Reveals Structural Characteristics. Lecture Notes in Computer Science, 2003, , 245-252.	1.3	0
64	Nonlinear analysis of irregular animal vocalizations. Journal of the Acoustical Society of America, 2002, 111, 2908-2919.	1.1	98
65	Calls out of chaos: the adaptive significance of nonlinear phenomena in mammalian vocal production. Animal Behaviour, 2002, 63, 407-418.	1.9	451
66	Statistical analysis of the DNA sequence of human chromosome 22. Physical Review E, 2001, 64, 041917.	2.1	53
67	Is There a Bias in Proteome Research?. Genome Research, 2001, 11, 1971-1973.	5.5	189
68	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
69	Species independence of mutual information in coding and noncoding DNA. Physical Review E, 2000, 61, 5624-5629.	2.1	120
70	Nonlinear phenomena in the natural howling of a dogâ€"wolf mix. Journal of the Acoustical Society of America, 2000, 108, 1435-1442.	1.1	66
71	SIMULATIONS OF VOCAL FOLDS WITH AN ANALOG CIRCUIT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1999, 09, 1075-1088.	1.7	7
72	Modeling the role of nonhuman vocal membranes in phonation. Journal of the Acoustical Society of America, 1999, 105, 2020-2028.	1.1	83

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73	Correlations in Protein Sequences and Property Codes. Journal of Theoretical Biology, 1998, 190, 341-353.	1.7	60
74	Detecting Bifurcations in Voice Signals. , 1998, , 325-344.		6
75	Phonation onset: Vocal fold modeling and high-speed glottography. Journal of the Acoustical Society of America, 1998, 104, 464-470.	1.1	42
76	Correlations in DNA sequences: The role of protein coding segments. Physical Review E, 1997, 55, 800-810.	2.1	98
77	Quantification of transients using empirical orthogonal functions. Chaos, Solitons and Fractals, 1997, 8, 1911-1920.	5.1	3
78	Modelling biphonation â€" The role of the vocal tract. Speech Communication, 1997, 22, 141-154.	2.8	67
79	Bifurcations in excised larynx experiments. Journal of Voice, 1996, 10, 129-138.	1.5	147
80	Measuring correlations in symbol sequences. Physica A: Statistical Mechanics and Its Applications, 1995, 216, 518-542.	2.6	164
81	Bifurcations in an asymmetric vocalâ€fold model. Journal of the Acoustical Society of America, 1995, 97, 1874-1884.	1.1	286
82	Nonlinear dynamics of the voice: Signal analysis and biomechanical modeling. Chaos, 1995, 5, 30-34.	2.5	138
83	Hochgeschwindigkeitsaufnahmen von Schwingungsmoden der Stimmlippen. Oto-rhino-laryngologia Nova, 1994, 4, 307-312.	0.0	4
84	Analysis of Vocal Disorders With Methods From Nonlinear Dynamics. Journal of Speech, Language, and Hearing Research, 1994, 37, 1008-1019.	1.6	194
85	Entropies of biosequences: The role of repeats. Physical Review E, 1994, 50, 5061-5071.	2.1	90
86	Interpretation of biomechanical simulations of normal and chaotic vocal fold oscillations with empirical eigenfunctions. Journal of the Acoustical Society of America, 1994, 95, 3595-3604.	1.1	205
87	Bifurcations and Chaos in Voice Signals. Applied Mechanics Reviews, 1993, 46, 399-413.	10.1	77
88	Chaos and Bifurcations during Voiced Speech. NATO ASI Series Series B: Physics, 1991, , 41-50.	0.2	12