

# Thomas J Balkin

## List of Publications by Year in descending order

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Version: 2024-02-01

114  
papers

9,337  
citations

66343

42  
h-index

39675

94  
g-index

117  
all docs

117  
docs citations

117  
times ranked

7444  
citing authors

#	ARTICLE	IF	CITATIONS
1	Patterns of performance degradation and restoration during sleep restriction and subsequent recovery: a sleep dose-response study. <i>Journal of Sleep Research</i> , 2003, 12, 1-12.	3.2	1,152
2	Decoupling of the brain's default mode network during deep sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11376-11381.	7.1	627
3	Dissociated Pattern of Activity in Visual Cortices and Their Projections During Human Rapid Eye Movement Sleep. <i>Science</i> , 1998, 279, 91-95.	12.6	584
4	Low frequency BOLD fluctuations during resting wakefulness and light sleep: A simultaneous EEG-fMRI study. <i>Human Brain Mapping</i> , 2008, 29, 671-682.	3.6	521
5	Impaired decision making following 49 h of sleep deprivation. <i>Journal of Sleep Research</i> , 2006, 15, 7-13.	3.2	427
6	Maintaining alertness and performance during sleep deprivation: modafinil versus caffeine. <i>Psychopharmacology</i> , 2002, 159, 238-247.	3.1	368
7	Sleep disorders and work performance: findings from the 2008 National Sleep Foundation Sleep in America poll. <i>Journal of Sleep Research</i> , 2011, 20, 487-494.	3.2	296
8	Sleep deprivation reduces perceived emotional intelligence and constructive thinking skills. <i>Sleep Medicine</i> , 2008, 9, 517-526.	1.6	289
9	Performance and alertness effects of caffeine, dextroamphetamine, and modafinil during sleep deprivation. <i>Journal of Sleep Research</i> , 2005, 14, 255-266.	3.2	277
10	The rate of absorption and relative bioavailability of caffeine administered in chewing gum versus capsules to normal healthy volunteers. <i>International Journal of Pharmaceutics</i> , 2002, 234, 159-167.	5.2	269
11	The effects of sleep deprivation on symptoms of psychopathology in healthy adults. <i>Sleep Medicine</i> , 2007, 8, 215-221.	1.6	265
12	The process of awakening: a PET study of regional brain activity patterns mediating the re-establishment of alertness and consciousness. <i>Brain</i> , 2002, 125, 2308-2319.	7.6	220
13	Banking Sleep: Realization of Benefits During Subsequent Sleep Restriction and Recovery. <i>Sleep</i> , 2009, 32, 311-321.	1.1	220
14	Comparative utility of instruments for monitoring sleepiness-related performance decrements in the operational environment. <i>Journal of Sleep Research</i> , 2004, 13, 219-227.	3.2	217
15	The Effects of 53 Hours of Sleep Deprivation on Moral Judgment. <i>Sleep</i> , 2007, 30, 345-352.	1.1	171
16	Trait-Like Vulnerability to Total and Partial Sleep Loss. <i>Sleep</i> , 2012, 35, 1163-1172.	1.1	152
17	The Use of Stimulants to Modify Performance During Sleep Loss: A Review by the Sleep Deprivation and Stimulant Task Force of the American Academy of Sleep Medicine. <i>Sleep</i> , 2005, 28, 1163-1187.	1.1	146
18	Sleep Loss and Sleepiness. <i>Chest</i> , 2008, 134, 653-660.	0.8	121

#	ARTICLE	IF	CITATIONS
19	Sustaining Executive Functions During Sleep Deprivation: A Comparison of Caffeine, Dextroamphetamine, and Modafinil. <i>Sleep</i> , 2009, 32, 205-216.	1.1	119
20	Effects of dextroamphetamine, caffeine and modafinil on psychomotor vigilance test performance after 44h of continuous wakefulness. <i>Journal of Sleep Research</i> , 2008, 17, 309-321.	3.2	116
21	Rhythmic alternating patterns of brain activity distinguish rapid eye movement sleep from other states of consciousness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10300-10305.	7.1	113
22	Sleep, Sleep Disorders, and Mild Traumatic Brain Injury. What We Know and What We Need to Know: Findings from a National Working Group. <i>Neurotherapeutics</i> , 2016, 13, 403-417.	4.4	107
23	The challenges and opportunities of technological approaches to fatigue management. <i>Accident Analysis and Prevention</i> , 2011, 43, 565-572.	5.7	94
24	Sleep and Health Resilience Metrics in a Large Military Cohort. <i>Sleep</i> , 2016, 39, 1111-1120.	1.1	91
25	Gambling When Sleep Deprived: Don't Bet on Stimulants. <i>Chronobiology International</i> , 2012, 29, 43-54.	2.0	88
26	Relationship between sleep inertia and sleepiness: Cumulative effects of four nights of sleep disruption/restriction on performance following abrupt nocturnal awakening. <i>Biological Psychology</i> , 1988, 27, 245-258.	2.2	85
27	Age and individual variability in performance during sleep restriction. <i>Journal of Sleep Research</i> , 2006, 15, 376-385.	3.2	84
28	Does sleep fragmentation impact recuperation? A review and reanalysis. <i>Journal of Sleep Research</i> , 1999, 8, 237-245.	3.2	81
29	Sleep deprivation impairs recognition of specific emotions. <i>Neurobiology of Sleep and Circadian Rhythms</i> , 2017, 3, 10-16.	2.8	77
30	Caffeine Effects on Risky Decision Making After 75 Hours of Sleep Deprivation. <i>Aviation, Space, and Environmental Medicine</i> , 2007, 78, 957-962.	0.5	76
31	Caffeine protects against increased risk-taking propensity during severe sleep deprivation. <i>Journal of Sleep Research</i> , 2011, 20, 395-403.	3.2	76
32	Comparison of Motionlogger Watch and Actiwatch actigraphs to polysomnography for sleep/wake estimation in healthy young adults. <i>Behavior Research Methods</i> , 2011, 43, 1152-1160.	4.0	76
33	Fatigue models for applied research in warfighting. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, A44-53; discussion A54-60.	0.5	76
34	The Effects of Caffeine, Dextroamphetamine, and Modafinil on Humor Appreciation During Sleep Deprivation. <i>Sleep</i> , 2006, 29, 841-847.	1.1	68
35	Comparison of the daytime sleep and performance effects of zolpidem versus triazolam. <i>Psychopharmacology</i> , 1992, 107, 83-88.	3.1	60
36	PER3 and ADORA2A polymorphisms impact neurobehavioral performance during sleep restriction. <i>Journal of Sleep Research</i> , 2013, 22, 160-165.	3.2	58

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37	Restoration of Risk-Propensity During Sleep Deprivation: Caffeine, Dextroamphetamine, and Modafinil. <i>Aviation, Space, and Environmental Medicine</i> , 2008, 79, 867-874.	0.5	54
38	Infraslow EEG oscillations organize large-scale corticalâ€“subcortical interactions during sleep: A combined EEG/fMRI study. <i>Brain Research</i> , 2011, 1374, 63-72.	2.2	54
39	The trait of Introversionâ€“Extraversion predicts vulnerability to sleep deprivation. <i>Journal of Sleep Research</i> , 2007, 16, 354-363.	3.2	50
40	Executive Functions and the Ability to Sustain Vigilance During Sleep Loss. <i>Aviation, Space, and Environmental Medicine</i> , 2009, 80, 81-87.	0.5	50
41	Modafinil vs. caffeine: effects on fatigue during sleep deprivation. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, 520-5.	0.5	50
42	fMRI differences between early and late stage-1 sleep. <i>Neuroscience Letters</i> , 2008, 441, 81-85.	2.1	48
43	A unified mathematical model to quantify performance impairment for both chronic sleep restriction and total sleep deprivation. <i>Journal of Theoretical Biology</i> , 2013, 331, 66-77.	1.7	48
44	Ampakine (CX717) Effects on Performance and Alertness During Simulated Night Shift Work. <i>Aviation, Space, and Environmental Medicine</i> , 2007, 78, 937-943.	0.5	45
45	Caffeine Gum Minimizes Sleep Inertia. <i>Perceptual and Motor Skills</i> , 2013, 116, 280-293.	1.3	45
46	Sleep Symptoms as a Partial Mediator Between Combat Stressors and Other Mental Health Symptoms in Iraq War Veterans. <i>Military Psychology</i> , 2010, 22, 340-355.	1.1	40
47	The Impact of Insufficient Sleep on Combat Mission Performance. <i>Military Behavioral Health</i> , 2016, 4, 356-363.	0.8	38
48	Optimizing Sleep in the Military. <i>Chest</i> , 2019, 155, 215-226.	0.8	37
49	Individualized performance prediction of sleep-deprived individuals with the two-process model. <i>Journal of Applied Physiology</i> , 2008, 104, 459-468.	2.5	36
50	Caffeine effects on recovery sleep following 27 h total sleep deprivation. <i>Aviation, Space, and Environmental Medicine</i> , 2005, 76, 108-13.	0.5	35
51	A systematic review and meta-analysis of sleep architecture and chronic traumatic brain injury. <i>Sleep Medicine Reviews</i> , 2018, 41, 61-77.	8.5	32
52	Sleep extension reduces pain sensitivity. <i>Sleep Medicine</i> , 2019, 54, 172-176.	1.6	31
53	Daytime Sleep and Performance Following a Zolpidem and Melatonin Cocktail. <i>Sleep</i> , 2005, 28, 93-103.	1.1	30
54	An Improved Methodology for Individualized Performance Prediction of Sleep-Deprived Individuals with the Two-Process Model. <i>Sleep</i> , 2009, 32, 1377-1392.	1.1	30

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55	A Unified Model of Performance: Validation of its Predictions across Different Sleep/Wake Schedules. Sleep, 2016, 39, 249-262.	1.1	29
56	A Unified Model of Performance for Predicting the Effects of Sleep and Caffeine. Sleep, 2016, 39, 1827-1841.	1.1	28
57	Can a mathematical model predict an individual's trait-like response to both total and partial sleep loss?. Journal of Sleep Research, 2015, 24, 262-269.	3.2	27
58	<i>2BAlert</i> App: A mobile application for real-time individualized prediction of alertness. Journal of Sleep Research, 2019, 28, e12725.	3.2	27
59	Effects of sleep extension on cognitive/motor performance and motivation in military tactical athletes. Sleep Medicine, 2019, 58, 48-55.	1.6	27
60	OLFACTORY DECREMENTS AS A FUNCTION OF TWO NIGHTS OF SLEEP DEPRIVATION. Journal of Sensory Studies, 2006, 21, 456-463.	1.6	25
61	Sex Differences in Cognitive Estimation During Sleep Deprivation: Effects of Stimulant Countermeasures. International Journal of Neuroscience, 2008, 118, 1547-1557.	1.6	24
62	Dose-dependent model of caffeine effects on human vigilance during total sleep deprivation. Journal of Theoretical Biology, 2014, 358, 11-24.	1.7	24
63	Sex Differences in Self-Reported Risk-Taking Propensity on the Evaluation of Risks Scale. Psychological Reports, 2010, 106, 693-700.	1.7	23
64	Baseline Odor Identification Ability Predicts Degradation of Psychomotor Vigilance During 77 Hours of Sleep Deprivation. International Journal of Neuroscience, 2008, 118, 1207-1225.	1.6	22
65	Real-time individualization of the unified model of performance. Journal of Sleep Research, 2017, 26, 820-831.	3.2	22
66	Limited Efficacy of Caffeine and Recovery Costs During and Following 5 Days of Chronic Sleep Restriction. Sleep, 2017, 40, .	1.1	22
67	<i>2BAlert</i> Web: An Open-Access Tool for Predicting the Effects of Sleep/Wake Schedules and Caffeine Consumption on Neurobehavioral Performance. Sleep, 2016, 39, 2157-2159.	1.1	21
68	Modulating the homeostatic process to predict performance during chronic sleep restriction. Aviation, Space, and Environmental Medicine, 2004, 75, A141-6.	0.5	20
69	Sleep history affects task acquisition during subsequent sleep restriction and recovery. Journal of Sleep Research, 2010, 19, 289-297.	3.2	19
70	Socializing by Day May Affect Performance by Night: Vulnerability to Sleep Deprivation is Differentially Mediated by Social Exposure in Extraverts vs Introverts. Sleep, 2010, 33, 1475-1485.	1.1	19
71	Sleep extension reduces fatigue in healthy, normally-sleeping young adults. Sleep Science, 2019, 12, 21-27.	1.0	19
72	Odor Identification Ability Predicts Executive Function Deficits Following Sleep Deprivation. International Journal of Neuroscience, 2010, 120, 328-334.	1.6	18

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73	A biomathematical model of the restoring effects of caffeine on cognitive performance during sleep deprivation. <i>Journal of Theoretical Biology</i> , 2013, 319, 23-33.	1.7	18
74	Indirect associations of combat exposure with post-deployment physical symptoms in U.S. soldiers: Roles of post-traumatic stress disorder, depression and insomnia. <i>Journal of Psychosomatic Research</i> , 2015, 78, 478-483.	2.6	18
75	Administration of triazolam prior to recovery sleep: effects on sleep architecture, subsequent alertness and performance. <i>Psychopharmacology</i> , 1989, 99, 526-531.	3.1	17
76	Caffeine dosing strategies to optimize alertness during sleep loss. <i>Journal of Sleep Research</i> , 2018, 27, e12711.	3.2	17
77	Sleep health and its association with performance and motivation in tactical athletes enrolled in the Reserve Officers' Training Corps. <i>Sleep Health</i> , 2019, 5, 309-314.	2.5	17
78	Chapter 16 Modeling Fatigue over Sleep Deprivation, Circadian Rhythm, and Caffeine with a Minimal Performance Inhibitor Model. <i>Methods in Enzymology</i> , 2009, 454, 405-421.	1.0	16
79	Effects of Triazolam on Performance and Sleep in a Model of Transient Insomnia. <i>Human Performance</i> , 1988, 1, 145-160.	2.4	15
80	A new metric for quantifying performance impairment on the psychomotor vigilance test. <i>Journal of Sleep Research</i> , 2012, 21, 659-674.	3.2	15
81	Caffeine Improves the Efficiency of Planning and Sequencing Abilities During Sleep Deprivation. <i>Journal of Clinical Psychopharmacology</i> , 2014, 34, 660-662.	1.4	15
82	Socializing by Day May Affect Performance by Night: Vulnerability to Sleep Deprivation is Differentially Mediated by Social Exposure in Extraverts vs Introverts. <i>Sleep</i> , 2010, 33, 1475-1485.	1.1	12
83	Behavioral Biomarkers of Sleepiness. <i>Journal of Clinical Sleep Medicine</i> , 2011, 7, S12-5.	2.6	12
84	Daily Insufficient Sleep and Active Duty Status. <i>Military Medicine</i> , 2015, 180, 68-76.	0.8	11
85	Self-Reported Sleep Need, Subjective Resilience, and Cognitive Performance Following Sleep Loss and Recovery Sleep. <i>Psychological Reports</i> , 2021, 124, 210-226.	1.7	10
86	ODOR IDENTIFICATION ABILITY PREDICTS CHANGES IN SYMPTOMS OF PSYCHOPATHOLOGY FOLLOWING 56h OF SLEEP DEPRIVATION. <i>Journal of Sensory Studies</i> , 2008, 23, 35-51.	1.6	8
87	On the importance of countermeasures in sleep and performance models. <i>Aviation, Space, and Environmental Medicine</i> , 2004, 75, A155-7.	0.5	8
88	Positron Emission Tomography Correlates of Visually-Scored Electroencephalographic Waveforms During Non-Rapid Eye Movement Sleep. <i>International Journal of Neuroscience</i> , 2009, 119, 2074-2099.	1.6	7
89	Acute sleep interventions as an avenue for treatment of trauma-associated disorders. <i>Journal of Clinical Sleep Medicine</i> , 2022, 18, 2291-2312.	2.6	7
90	Countermeasures for Mitigating Fatigue in Motor Vehicle Operators. <i>Reviews of Human Factors and Ergonomics</i> , 2015, 10, 115-137.	0.5	6

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91	Objective changes in activity levels following sleep extension as measured by wrist actigraphy. Sleep Medicine, 2019, 60, 173-177.	1.6	6
92	$\alpha$ G308A genotype, resilience to sleep deprivation, and the effect of caffeine on psychomotor vigilance performance in a randomized, double-blind, placebo-controlled, crossover study. Chronobiology International, 2020, 37, 1461-1464.	2.0	6
93	Effect of cognitive load and emotional valence of distractors on performance during sleep extension and subsequent sleep deprivation. Sleep, 2020, 43, .	1.1	6
94	Discontinuous growth modeling of adaptation to sleep setting changes: individual differences and age. Aviation, Space, and Environmental Medicine, 2007, 78, 485-92.	0.5	6
95	Performance Deficits During Sleep Loss and Their Operational Consequences. , 2017, , 682-688.e4.		5
96	Models for predicting sleep latency and sleep duration. Sleep, 2021, 44, .	1.1	5
97	Socializing by Day May Affect Performance by Night: Vulnerability to Sleep Deprivation is Differentially Mediated by Social Exposure in Extraverts vs Introverts. Sleep, 2010, 33, 1475-85.	1.1	5
98	2B-Alert Web 2.0, an Open-Access Tool for Predicting Alertness and Optimizing the Benefits of Caffeine: Utility Study. Journal of Medical Internet Research, 2022, 24, e29595.	4.3	5
99	Effects of Acute Caffeine Withdrawal on Short Category Test Performance in Sleep-Deprived Individuals. Perceptual and Motor Skills, 2007, 105, 1265-1274.	1.3	4
100	Precision Medicine for Sleep Loss and Fatigue Management. Sleep Medicine Clinics, 2019, 14, 399-406.	2.6	4
101	Countermeasures to the neurocognitive deficits associated with sleep loss. Drug Discovery Today: Disease Models, 2011, 8, 139-146.	1.2	3
102	Performance Deficits during Sleep Loss. , 2011, , 738-744.		3
103	Individualized performance prediction during total sleep deprivation: Accounting for trait vulnerability to sleep loss. , 2012, 2012, 5574-7.		3
104	A Pilot Study on the Encoding of a Perceptual Learning Task following Sleep Deprivation. Perceptual and Motor Skills, 2015, 121, 80-93.	1.3	3
105	Handedness Correlates with Actigraphically Measured Sleep in a Controlled Environment. Perceptual and Motor Skills, 2009, 109, 395-400.	1.3	2
106	Sleep and Performance Prediction Modeling. , 2017, , 689-696.e4.		2
107	Rates of cerebral protein synthesis in primary visual cortex during sleep-dependent memory consolidation, a study in human subjects. Sleep, 2018, 41, .	1.1	2
108	Sustaining Executive Functions During Sleep Deprivation: A Comparison of Caffeine, Dextroamphetamine, and Modafinil. Sleep, 2009, , .	1.1	1

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109	0324 2B-Alert Web 2.0: An Open-access Tool to Determine Caffeine Doses That Optimize Alertness. Sleep, 2019, 42, A132-A133.	1.1	1
110	Sleepiness in the military: operational implications and research imperatives. , 0, , 215-224.		0
111	Fatigue management: the art of the state. , 0, , 257-267.		0
112	0206 Personalized Caffeine Recommendations To Maintain Alertness: You And I Need Different Doses. Sleep, 2019, 42, A84-A85.	1.1	0
113	The role of pharmacological interventions for sleep deprivation and restriction. , 2023, , 506-517.		0
114	Sleep as a Mediator of mTBI and PTSD. , 2018, , 25-32.		0