Gavin M Bidelman

List of Publications by Year
in descending order

133 papers	5,365 citations	94433 37 h-index	110387 64 g-index
160 all docs	160 docs citations	160 times ranked	2618 citing authors

#	Article	IF	Citations
1	Cross-domain Effects of Music and Language Experience on the Representation of Pitch in the Human Auditory Brainstem. Journal of Cognitive Neuroscience, 2011, 23, 425-434.	2.3	269
2	Tone Language Speakers and Musicians Share Enhanced Perceptual and Cognitive Abilities for Musical Pitch: Evidence for Bidirectionality between the Domains of Language and Music. PLoS ONE, 2013, 8, e60676.	2.5	213
3	Musical Training Orchestrates Coordinated Neuroplasticity in Auditory Brainstem and Cortex to Counteract Age-Related Declines in Categorical Vowel Perception. Journal of Neuroscience, 2015, 35, 1240-1249.	3.6	205
4	Subcortical sources dominate the neuroelectric auditory frequency-following response to speech. NeuroImage, 2018, 175, 56-69.	4.2	198
5	Effects of reverberation on brainstem representation of speech in musicians and non-musicians. Brain Research, 2010, 1355, 112-125.	2.2	191
6	Age-related changes in the subcorticalâ€"cortical encoding and categorical perception of speech. Neurobiology of Aging, 2014, 35, 2526-2540.	3.1	187
7	Neural Correlates of Consonance, Dissonance, and the Hierarchy of Musical Pitch in the Human Brainstem. Journal of Neuroscience, 2009, 29, 13165-13171.	3.6	168
8	Examining neural plasticity and cognitive benefit through the unique lens of musical training. Hearing Research, 2014, 308, 84-97.	2.0	161
9	Tracing the emergence of categorical speech perception in the human auditory system. NeuroImage, 2013, 79, 201-212.	4.2	160
10	Multichannel recordings of the human brainstem frequency-following response: Scalp topography, source generators, and distinctions from the transient ABR. Hearing Research, 2015, 323, 68-80.	2.0	145
11	Musicians and tone-language speakers share enhanced brainstem encoding but not perceptual benefits for musical pitch. Brain and Cognition, 2011, 77, 1-10.	1.8	141
12	Coordinated plasticity in brainstem and auditory cortex contributes to enhanced categorical speech perception in musicians. European Journal of Neuroscience, 2014, 40, 2662-2673.	2.6	138
13	The effects of tone language experience on pitch processing in the brainstem. Journal of Neurolinguistics, 2010, 23, 81-95.	1.1	122
14	Turning down the noise: The benefit of musical training on the aging auditory brain. Hearing Research, 2014, 308, 162-173.	2.0	113
15	Functional changes in inter- and intra-hemispheric cortical processing underlying degraded speech perception. NeuroImage, 2016, 124, 581-590.	4.2	94
16	Experience-dependent neural representation of dynamic pitch in the brainstem. NeuroReport, 2009, 20, 408-413.	1.2	92
17	Inherent auditory skills rather than formal music training shape the neural encoding of speech. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 13129-13134.	7.1	92
18	Enhanced brainstem encoding predicts musiciansâ€™ perceptual advantages with pitch. European Journal of Neuroscience, 2011, 33, 530-538.	2.6	80

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19	Cognitive and neural plasticity in older adultsâ€™ prospective memory following training with the Virtual Week computer game. Frontiers in Human Neuroscience, 2015, 9, 592.	2.0	80
20	Mild Cognitive Impairment Is Characterized by Deficient Brainstem and Cortical Representations of Speech. Journal of Neuroscience, 2017, 37, 3610-3620.	3.6	76
21	Spectrotemporal dynamics of the <scp>EEG</scp> during working memory encoding and maintenance predicts individual behavioral capacity. European Journal of Neuroscience, 2014, 40, 3774-3784.	2.6	75
22	Relationship between brainstem, cortical and behavioral measures relevant to pitch salience in humans. Neuropsychologia, 2012, 50, 2849-2859.	1.6	63
23	Right-ear advantage drives the link between olivocochlear efferent â€˜antimaskingâ€™ and speech-in-noise listening benefits. NeuroReport, 2015, 26, 483-487.	1.2	62
24	A Single-Channel EEG-Based Approach to Detect Mild Cognitive Impairment via Speech-Evoked Brain Responses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1063-1070.	4.9	60
25	Effects of language experience and stimulus context on the neural organization and categorical perception of speech. NeuroImage, 2015, 120, 191-200.	4.2	59
26	Neural representation of pitch salience in the human brainstem revealed by psychophysical and electrophysiological indices. Hearing Research, 2010, 268, 60-66.	2.0	57
27	Pitch expertise is not created equal: Cross-domain effects of musicianship and tone language experience on neural and behavioural discrimination of speech and music. Neuropsychologia, 2015, 71, 52-63.	1.6	54
28	Bilinguals at the â€œcocktail partyâ€ Dissociable neural activity in auditoryâ€"linguistic brain regions reveals neurobiological basis for nonnative listenersâ€™ speech-in-noise recognition deficits. Brain and Language, 2015, 143, 32-41.	1.6	52
29	Experience-dependent plasticity in pitch encoding. NeuroReport, 2012, 23, 498-502.	1.2	50
30	Induced neural beta oscillations predict categorical speech perception abilities. Brain and Language, 2015, 141, 62-69.	1.6	50
31	Auditory-nerve responses predict pitch attributes related to musical consonance-dissonance for normal and impaired hearing. Journal of the Acoustical Society of America, 2011, 130, 1488-1502.	1.1	48
32	The Role of the Auditory Brainstem in Processing Musically Relevant Pitch. Frontiers in Psychology, 2013, 4, 264.	2.1	46
33	Musicians have enhanced audiovisual multisensory binding: experience-dependent effects in the double-flash illusion. Experimental Brain Research, 2016, 234, 3037-3047.	1.5	46
34	Brainstem-cortical functional connectivity for speech is differentially challenged by noise and reverberation. Hearing Research, 2018, 367, 149-160.	2.0	46
35	Language-dependent pitch encoding advantage in the brainstem is not limited to acceleration rates that occur in natural speech. Brain and Language, 2010, 114, 193-198.	1.6	45
36	Turning down the noise: The benefit of musical training on the aging auditory brain. Hearing Research, 2014, 308, 162-173.	2.0	45

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37	Towards an optimal paradigm for simultaneously recording cortical and brainstem auditory evoked potentials. Journal of Neuroscience Methods, 2015, 241, 94-100.	2.5	44
38	Afferent-efferent connectivity between auditory brainstem and cortex accounts for poorer speech-in-noise comprehension in older adults. Hearing Research, 2019, 382, 107795.	2.0	44
39	Brainstem correlates of behavioral and compositional preferences of musical harmony. NeuroReport, 2011, 22, 212-216.	1.2	43
40	Attentional modulation and domainâ€specificity underlying the neural organization of auditory categorical perception. European Journal of Neuroscience, 2017, 45, 690-699.	2.6	43
41	Listening to the Brainstem: Musicianship Enhances Intelligibility of Subcortical Representations for Speech. Journal of Neuroscience, 2015, 35, 1687-1691.	3.6	42
42	Linguistic, perceptual, and cognitive factors underlying musiciansâ€™ benefits in noise-degraded speech perception. Hearing Research, 2019, 377, 189-195.	2.0	40
43	Functional organization for musical consonance and tonal pitch hierarchy in human auditory cortex. NeuroImage, 2014, 101, 204-214.	4.2	39
44	Explaining the high voice superiority effect in polyphonic music: Evidence from cortical evoked potentials and peripheral auditory models. Hearing Research, 2014, 308, 60-70.	2.0	37
45	Age-related hearing loss increases full-brain connectivity while reversing directed signaling within the dorsalâ€“ventral pathway for speech. Brain Structure and Function, 2019, 224, 2661-2676.	2.3	37
46	Music and Visual Art Training Modulate Brain Activity in Older Adults. Frontiers in Neuroscience, 2019, 13, 182.	2.8	35
47	Auditory-frontal Channeling in Î± and Î² Bands is Altered by Age-related Hearing Loss and Relates to Speech Perception in Noise. Neuroscience, 2019, 423, 18-28.	2.3	34
48	Attention reinforces human corticofugal system to aid speech perception in noise. NeuroImage, 2021, 235, 118014.	4.2	34
49	Songbirds tradeoff auditory frequency resolution and temporal resolution. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 351-359.	1.6	33
50	Response properties of the human frequency-following response (FFR) to speech and non-speech sounds: level dependence, adaptation and phase-locking limits. International Journal of Audiology, 2018, 57, 665-672.	1.7	33
51	Psychophysical auditory filter estimates reveal sharper cochlear tuning in musicians. Journal of the Acoustical Society of America, 2014, 136, EL33-EL39.	1.1	32
52	Musicianship enhances ipsilateral and contralateral efferent gain control to the cochlea. Hearing Research, 2017, 344, 275-283.	2.0	32
53	Distortion products and their influence on representation of pitch-relevant information in the human brainstem for unresolved harmonic complex tones. Hearing Research, 2012, 292, 26-34.	2.0	31
54	Brainstem pitch representation in native speakers of Mandarin is less susceptible to degradation of stimulus temporal regularity. Brain Research, 2010, 1313, 124-133.	2.2	29

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55	Musicians demonstrate experience-dependent brainstem enhancement of musical scale features within continuously gliding pitch. Neuroscience Letters, 2011, 503, 203-207.	2.1	29
56	Auditory categorical processing for speech is modulated by inherent musical listening skills. NeuroReport, 2020, 31, 162-166.	1.2	29
57	Hierarchical neurocomputations underlying concurrent sound segregation: Connecting periphery to percept. Neuropsychologia, 2015, 68, 38-50.	1.6	27
58	Testâ€"Retest Reliability of Dual-Recorded Brainstem versus Cortical Auditory-Evoked Potentials to Speech. Journal of the American Academy of Audiology, 2018, 29, 164-174.	0.7	27
59	Musical experience sharpens human cochlear tuning. Hearing Research, 2016, 335, 40-46.	2.0	26
60	Amplified induced neural oscillatory activity predicts musiciansâ€™ benefits in categorical speech perception. Neuroscience, 2017, 348, 107-113.	2.3	26
61	Plasticity in auditory categorization is supported by differential engagement of the auditory-linguistic network. NeuroImage, 2019, 201, 116022.	4.2	24
62	Effects of Noise on the Behavioral and Neural Categorization of Speech. Frontiers in Neuroscience, 2020, 14, 153.	2.8	24
63	Age-related differences in the sequential organization of speech sounds. Journal of the Acoustical Society of America, 2013, 133, 4177-4187.	1.1	22
64	Brain signal variability as a window into the bidirectionality between music and language processing: moving from a linear to a nonlinear model. Frontiers in Psychology, 2013, 4, 984.	2.1	22
65	Neural Correlates of Speech Segregation Based on Formant Frequencies of Adjacent Vowels. Scientific Reports, 2017, 7, 40790.	3.3	22
66	PsyAcoustX: A flexible MATLABÂ® package for psychoacoustics research. Frontiers in Psychology, 2015, 6, 1498.	2.1	20
67	Single trial prediction of normal and excessive cognitive load through EEG feature fusion. , 2015, , .		20
68	Auditory processing, linguistic prosody awareness, and word reading in Mandarin-speaking children learning English. Reading and Writing, 2017, 30, 1407-1429.	1.7	20
69	Decoding of single-trial EEG reveals unique states of functional brain connectivity that drive rapid speech categorization decisions. Journal of Neural Engineering, 2020, 17, 016045.	3.5	20
70	Noise and pitch interact during the cortical segregation of concurrent speech. Hearing Research, 2017, 351, 34-44.	2.0	19
71	Tone-language speakers show hemispheric specialization and differential cortical processing of contour and interval cues for pitch. Neuroscience, 2015, 305, 384-392.	2.3	18
72	Low- and high-frequency cortical brain oscillations reflect dissociable mechanisms of concurrent speech segregation in noise. Hearing Research, 2018, 361, 92-102.	2.0	18

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73	Brainstem correlates of concurrent speech identification in adverse listening conditions. Brain Research, 2019, 1714, 182-192.	2.2	18
74	Musicians Show Improved Speech Segregation in Competitive, Multi-Talker Cocktail Party Scenarios. Frontiers in Psychology, 2020, 11, 1927.	2.1	18
75	Subcortical rather than cortical sources of the frequency-following response (FFR) relate to speech-in-noise perception in normal-hearing listeners. Neuroscience Letters, 2021, 746, 135664.	2.1	18
76	Notched-noise precursors improve detection of low-frequency amplitude modulation. Journal of the Acoustical Society of America, 2017, 141, 324-333.	1.1	17
77	Functional ear (a)symmetry in brainstem neural activity relevant to encoding of voice pitch: A precursor for hemispheric specialization?. Brain and Language, 2011, 119, 226-231.	1.6	16
78	Objective Information-Theoretic Algorithm for Detecting Brainstem-Evoked Responses to Complex Stimuli. Journal of the American Academy of Audiology, 2014, 25, 715-726.	0.7	16
79	Relative contribution of envelope and fine structure to the subcortical encoding of noise-degraded speech. Journal of the Acoustical Society of America, 2016, 140, EL358-EL363.	1.1	16
80	Sonification of scalp-recorded frequency-following responses (FFRs) offers improved response detection over conventional statistical metrics. Journal of Neuroscience Methods, 2018, 293, 59-66.	2.5	15
81	Cortical encoding and neurophysiological tracking of intensity and pitch cues signaling English stress patterns in native and nonnative speakers. Brain and Language, 2016, 155-156, 49-57.	1.6	13
82	Mandarin-speaking preschoolersâ€™ pitch discrimination, prosodic and phonological awareness, and their relation to receptive vocabulary and reading abilities. Reading and Writing, 2021, 34, 337-353.	1.7	13
83	Auditory perceptual restoration and illusory continuity correlates in the human brainstem. Brain Research, 2016, 1646, 84-90.	2.2	12
84	Decoding Hearing-Related Changes in Older Adultsâ€™ Spatiotemporal Neural Processing of Speech Using Machine Learning. Frontiers in Neuroscience, 2020, 14, 748.	2.8	12
85	Predicting Speech Recognition Using the Speech Intelligibility Index and Other Variables for Cochlear Implant Users. Journal of Speech, Language, and Hearing Research, 2019, 62, 1517-1531.	1.6	12
86	Spectrotemporal resolution tradeoff in auditory processing as revealed by human auditory brainstem responses and psychophysical indices. Neuroscience Letters, 2014, 572, 53-57.	2.1	11
87	Enhanced temporal binding of audiovisual information in the bilingual brain. Bilingualism, 2019, 22, 752-762.	1.3	11
88	Acoustic Correlates and Adult Perceptions of Distress in Infant Speech-Like Vocalizations and Cries. Frontiers in Psychology, 2019, 10, 1154.	2.1	11
89	Communicating in Challenging Environments: Noise and Reverberation. Springer Handbook of Auditory Research, 2017, , 193-224.	0.7	11
90	NeuroMonitor ambulatory EEG device: Comparative analysis and its application for cognitive load assessment. , 2014, , .		10

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91	A pilot investigation of audiovisual processing and multisensory integration in patients with inherited retinal dystrophies. BMC Ophthalmology, 2017, 17, 240.	1.4	10
92	What brain connectivity patterns from EEG tell us about hearing loss: A graph theoretic approach. , 2018, , .		10
93	Auditory cortex supports verbal working memory capacity. NeuroReport, 2021, 32, 163-168.	1.2	10
94	Objective Identification of Simulated Cochlear Implant Settings in Normal-Hearing Listeners Via Auditory Cortical Evoked Potentials. Ear and Hearing, 2017, 38, e215-e226.	2.1	9
95	Acoustic noise and vision differentially warp the auditory categorization of speech. Journal of the Acoustical Society of America, 2019, 146, 60-70.	1.1	9
96	Neural Correlates of Enhanced Audiovisual Processing in the Bilingual Brain. Neuroscience, 2019, 401, 11-20.	2.3	9
97	Multivariate Models for Decoding Hearing Impairment using EEG Gamma-Band Power Spectral Density. , 2020, , .		9
98	Autonomic Nervous System Correlates of Speech Categorization Revealed Through Pupillometry. Frontiers in Neuroscience, 2019, 13, 1418.	2.8	9
99	Sensitivity of the cortical pitch onset response to height, time-variance, and directionality of dynamic pitch. Neuroscience Letters, 2015, 603, 89-93.	2.1	8
100	Frontal cortex selectively overrides auditory processing to bias perception for looming sonic motion. Brain Research, 2020, 1726, 146507.	2.2	8
101	Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. Brain Research, 2021, 1759, 147385.	2.2	8
102	Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. Clinical Neurophysiology, 2021, 132, 2152-2162.	1.5	8
103	Linguistic status of timbre influences pitch encoding in the brainstem. NeuroReport, 2011, 22, 801-803.	1.2	8
104	Reply to Schellenberg: Is there more to auditory plasticity than meets the ear?. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2785-2786.	7.1	7
105	Objective detection of auditory steady-state evoked potentials based on mutual information. International Journal of Audiology, 2016, 55, 313-319.	1.7	6
106	Single channel EEG time-frequency features to detect Mild Cognitive Impairment. , 2017, , .		6
107	Data-driven machine learning models for decoding speech categorization from evoked brain responses. Journal of Neural Engineering, 2021, 18, 046012.	3.5	6
108	Lexical Influences on Categorical Speech Perception Are Driven by a Temporoparietal Circuit. Journal of Cognitive Neuroscience, 2021, 33, 840-852.	2.3	6

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109	Enhanced brainstem phase-locking in low-level noise reveals stochastic resonance in the frequency-following response (FFR). Brain Research, 2021, 1771, 147643.	2.2	6
110	Modulation of brain connectivity by memory load in a working memory network. , 2014, , .		5
111	Design and validation of a wearable â€œDRL-lessâ€•EEG using a novel fully-reconfigurable architecture. , 2016, 2016, 4999-5002.		5
112	Seizure localization using EEG analytical signals. Clinical Neurophysiology, 2020, 131, 2131-2139.	1.5	5
113	Speech categorization is better described by induced rather than evoked neural activity. Journal of the Acoustical Society of America, 2021, 149, 1644-1656.	1.1	5
114	Decoding Categorical Speech Perception from Evoked Brain Responses. , 2020, , .		5
115	Song properties and familiarity affect speech recognition in musical noise.. Psychomusicology: Music, Mind and Brain, 2022, 32, 1-6.	0.3	5
116	Functional Plasticity Coupled With Structural Predispositions in Auditory Cortex Shape Successful Music Category Learning. Frontiers in Neuroscience, 0, 16, .	2.8	5
117	Psychobiological Responses Reveal Audiovisual Noise Differentially Challenges Speech Recognition. Ear and Hearing, 2020, 41, 268-277.	2.1	4
118	Brainstem correlates of cochlear nonlinearity measured via the scalp-recorded frequency-following response.. NeuroReport, 2020, 31, 702-707.	1.2	4
119	Auditory and olfactory findings in patients with USH2A â€related retinal degenerationâ€"Findings at baseline from the rate of progression in USH2A â€related retinal degeneration natural history study () Tj ETQq1 1 0.784314 rg BT /Ove	1.2	4
120	On the Relevance of Natural Stimuli for the Study of Brainstem Correlates: The Example of Consonance Perception. PLoS ONE, 2015, 10, e0145439.	2.5	4
121	Acoustic Features of Oral Reading Prosody and the Relation With Reading Fluency and Reading Comprehension in Taiwanese Children. Journal of Speech, Language, and Hearing Research, 2022, 65, 334-343.	1.6	4
122	Temporal progression in functional connectivity determines individual differences in working memory capacity. , 2017, , .		3
123	Crossâ€linguistic contributions of acoustic cues and prosodic awareness to first and second language vocabulary knowledge. Journal of Research in Reading, 2021, 44, 434-452.	2.0	3
124	Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. JASA Express Letters, 2022, 2, 045201.	1.1	3
125	Musicianship and Tone Language Experience Are Associated with Differential Changes in Brain Signal Variability. Journal of Cognitive Neuroscience, 2016, 28, 2044-2058.	2.3	2
126	Cochlear, brainstem, and psychophysical responses show spectrotemporal tradeoff in human auditory processing. NeuroReport, 2017, 28, 17-22.	1.2	2

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127	BRAINsens: Body-Worn Reconfigurable Architecture of Integrated Network Sensors. Journal of Medical Systems, 2018, 42, 185.	3.6	2
128	Musical experience partially counteracts temporal speech processing deficits in putative mild cognitive impairment. Annals of the New York Academy of Sciences, 2022, 1516, 114-122.	3.8	2
129	Children with amblyaudia show less flexibility in auditory cortical entrainment to periodic non-speech sounds. International Journal of Audiology, 2023, 62, 920-926.	1.7	2
130	Auditory Biomarker Identified for Early Cognitive Impairment. Hearing Journal, 2017, 70, 18,20.	0.1	1
131	Single Channel EEG Based Score Generation to Monitor the Severity and Progression of Mild Cognitive Impairment. , 2018, , .		1
132	Decoding Hearing Loss From Brain Signals. Hearing Journal, 2020, 73, 42,44,45.	0.1	1
133	Stimulus familiarity and attentional effects on the neural organization of auditory categorical perception. International Journal of Psychophysiology, 2016, 108, 154-155.	1.0	0