Edmund C Lalor

List of Publications by Year
in descending order

89 papers	6,437 citations	147726 31 h-index	91828 69 g-index
105 all docs	105 docs citations	105 times ranked	4142 citing authors

#	Article	IF	Citations
1	Increases in Alpha Oscillatory Power Reflect an Active Retinotopic Mechanism for Distracter Suppression During Sustained Visuospatial Attention. Journal of Neurophysiology, 2006, 95, 3844-3851.	0.9	599
2	Attentional Selection in a Cocktail Party Environment Can Be Decoded from Single-Trial EEG. Cerebral Cortex, 2015, 25, 1697-1706.	1.6	579
3	Low-Frequency Cortical Entrainment to Speech Reflects Phoneme-Level Processing. Current Biology, 2015, 25, 2457-2465.	1.8	463
4	The Multivariate Temporal Response Function (mTRF) Toolbox: A MATLAB Toolbox for Relating Neural Signals to Continuous Stimuli. Frontiers in Human Neuroscience, 2016, 10, 604.	1.0	433
5	Adolescent impulsivity phenotypes characterized by distinct brain networks. Nature Neuroscience, 2012, 15, 920-925.	7.1	368
6	Electrophysiological Correlates of Semantic Dissimilarity Reflect the Comprehension of Natural, Narrative Speech. Current Biology, 2018, 28, 803-809.e3.	1.8	293
7	Neural responses to uninterrupted natural speech can be extracted with precise temporal resolution. European Journal of Neuroscience, 2010, 31, 189-193.	1.2	243
8	Resolving Precise Temporal Processing Properties of the Auditory System Using Continuous Stimuli. Journal of Neurophysiology, 2009, 102, 349-359.	0.9	210
9	At what time is the cocktail party? A late locus of selective attention to natural speech. European Journal of Neuroscience, 2012, 35, 1497-1503.	1.2	205
10	Visual Spatial Attention Tracking Using High-Density SSVEP Data for Independent Brainâ€“Computer Communication. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 172-178.	2.7	188
11	Congruent Visual Speech Enhances Cortical Entrainment to Continuous Auditory Speech in Noise-Free Conditions. Journal of Neuroscience, 2015, 35, 14195-14204.	1.7	160
12	The VESPA: A method for the rapid estimation of a visual evoked potential. NeuroImage, 2006, 32, 1549-1561.	2.1	154
13	Visual Spatial Attention Control in an Independent Brain-Computer Interface. IEEE Transactions on Biomedical Engineering, 2005, 52, 1588-1596.	2.5	152
14	Eye Can Hear Clearly Now: Inverse Effectiveness in Natural Audiovisual Speech Processing Relies on Long-Term Crossmodal Temporal Integration. Journal of Neuroscience, 2016, 36, 9888-9895.	1.7	138
15	Decoding the auditory brain with canonical component analysis. NeuroImage, 2018, 172, 206-216.	2.1	133
16	Atypical cortical entrainment to speech in the right hemisphere underpins phonemic deficits in dyslexia. NeuroImage, 2018, 175, 70-79.	2.1	112
17	Semantic Context Enhances the Early Auditory Encoding of Natural Speech. Journal of Neuroscience, 2019, 39, 7564-7575.	1.7	98
18	Target Selection Signals Influence Perceptual Decisions by Modulating the Onset and Rate of Evidence Accumulation. Current Biology, 2016, 26, 496-502.	1.8	91

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19	Causal cortical dynamics of a predictive enhancement of speech intelligibility. NeuroImage, 2018, 166, 247-258.	2.1	84
20	Characteristic Increases in EEG Connectivity Correlate With Changes of Structural MRI in Amyotrophic Lateral Sclerosis. Cerebral Cortex, 2019, 29, 27-41.	1.6	76
21	Infant-directed speech facilitates seven-month-old infantsâ€™ cortical tracking of speech. Scientific Reports, 2018, 8, 13745.	1.6	68
22	Patterned functional network disruption in amyotrophic lateral sclerosis. Human Brain Mapping, 2019, 40, 4827-4842.	1.9	65
23	Evidence for Neural Computations of Temporal Coherence in an Auditory Scene and Their Enhancement during Active Listening. Journal of Neuroscience, 2015, 35, 7256-7263.	1.7	62
24	Indexing cortical entrainment to natural speech at the phonemic level: Methodological considerations for applied research. Hearing Research, 2017, 348, 70-77.	0.9	56
25	Cortical Measures of Phoneme-Level Speech Encoding Correlate with the Perceived Clarity of Natural Speech. ENeuro, 2018, 5, ENEURO.0084-18.2018.	0.9	56
26	Electroencephalography-Based Auditory Attention Decoding: Toward Neurosteered Hearing Devices. IEEE Signal Processing Magazine, 2021, 38, 89-102.	4.6	54
27	Linear Modeling of Neurophysiological Responses to Speech and Other Continuous Stimuli: Methodological Considerations for Applied Research. Frontiers in Neuroscience, 2021, 15, 705621.	1.4	54
28	Dissecting the cellular contributions to early visual sensory processing deficits in schizophrenia using the VESPA evoked response. Schizophrenia Research, 2008, 98, 256-264.	1.1	51
29	Functional Connectivity Changes in Resting-State EEG as Potential Biomarker for Amyotrophic Lateral Sclerosis. PLoS ONE, 2015, 10, e0128682.	1.1	51
30	What does polarity inversion of extrastriate activity tell us about striate contributions to the early VEP? A comment on Ales et al. (2010). NeuroImage, 2013, 76, 442-445.	2.1	46
31	Atypical cortical representation of peripheral visual space in children with an autism spectrum disorder. European Journal of Neuroscience, 2013, 38, 2125-2138.	1.2	43
32	Visual Cortical Entrainment to Motion and Categorical Speech Features during Silent Lipreading. Frontiers in Human Neuroscience, 2016, 10, 679.	1.0	42
33	Prosodic pitch processing is represented in deltaâ€band <scp>EEG</scp> and is dissociable from the cortical tracking of other acoustic and phonetic features. European Journal of Neuroscience, 2019, 50, 3831-3842.	1.2	41
34	Where is the cocktail party? Decoding locations of attended and unattended moving sound sources using EEG. NeuroImage, 2020, 205, 116283.	2.1	41
35	The cruciform model of striate generation of the early VEP, re-illustrated, not revoked: A reply to Ales et al. (2013). NeuroImage, 2013, 82, 154-159.	2.1	39
36	Dissociable electrophysiological measures of natural language processing reveal differences in speech comprehension strategy in healthy ageing. Scientific Reports, 2021, 11, 4963.	1.6	38

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37	Visual sensory processing deficits in schizophrenia: Is there anything to the magnocellular account?. Schizophrenia Research, 2012, 139, 246-252.	1.1	37
38	Towards obtaining spatiotemporally precise responses to continuous sensory stimuli in humans: A general linear modeling approach to EEG. NeuroImage, 2014, 97, 196-205.	2.1	37
39	Look at me when I'm talking to you: Selective attention at a multisensory cocktail party can be decoded using stimulus reconstruction and alpha power modulations. European Journal of Neuroscience, 2019, 50, 3282-3295.	1.2	36
40	Neurophysiological Indices of Audiovisual Speech Processing Reveal a Hierarchy of Multisensory Integration Effects. Journal of Neuroscience, 2021, 41, 4991-5003.	1.7	34
41	Endogenous Auditory Spatial Attention Modulates Obligatory Sensory Activity in Auditory Cortex. Cerebral Cortex, 2011, 21, 1223-1230.	1.6	31
42	Neural tracking of auditory motion is reflected by delta phase and alpha power of EEG. NeuroImage, 2018, 181, 683-691.	2.1	28
43	EEG decoding of the target speaker in a cocktail party scenario: considerations regarding dynamic switching of talker location. Journal of Neural Engineering, 2019, 16, 036017.	1.8	28
44	Envelope reconstruction of speech and music highlights stronger tracking of speech at low frequencies. PLoS Computational Biology, 2021, 17, e1009358.	1.5	28
45	Cortical Tracking of Complex Sound Envelopes: Modeling the Changes in Response with Intensity. ENeuro, 2019, 6, ENEURO.0082-19.2019.	0.9	27
46	An Integrated Neural Decoder of Linguistic and Experiential Meaning. Journal of Neuroscience, 2019, 39, 8969-8987.	1.7	26
47	Isolating endogenous visuoâ€spatial attentional effects using the novel visualâ€evoked spread spectrum analysis (VESPA) technique. European Journal of Neuroscience, 2007, 26, 3536-3542.	1.2	25
48	EEG-based classification of natural sounds reveals specialized responses to speech and music. NeuroImage, 2020, 210, 116558.	2.1	25
49	Mismatch Negativity as an Indicator of Cognitive Sub-Domain Dysfunction in Amyotrophic Lateral Sclerosis. Frontiers in Neurology, 2017, 8, 395.	1.1	24
50	Visual evoked spread spectrum analysis (VESPA) responses to stimuli biased towards magnocellular and parvocellular pathways. Vision Research, 2009, 49, 127-133.	0.7	23
51	Multiple Regions of a Cortical Network Commonly Encode the Meaning of Words in Multiple Grammatical Positions of Read Sentences. Cerebral Cortex, 2019, 29, 2396-2411.	1.6	23
52	An Investigation of Feasibility and Safety of Bi-Modal Stimulation for the Treatment of Tinnitus: An Open-Label Pilot Study. Neuromodulation, 2016, 19, 832-837.	0.4	21
53	Deep Artificial Neural Networks Reveal a Distributed Cortical Network Encoding Propositional Sentence-Level Meaning. Journal of Neuroscience, 2021, 41, 4100-4119.	1.7	21
54	Early Spatial Attentional Modulation of Inputs to the Fovea. Journal of Neuroscience, 2010, 30, 4547-4551.	1.7	20

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55	ASR for Under-Resourced Languages From Probabilistic Transcription. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 50-63.	4.0	20
56	Attention Differentially Affects Acoustic and Phonetic Feature Encoding in a Multispeaker Environment. Journal of Neuroscience, 2022, 42, 682-691.	1.7	20
57	Dysfunction of attention switching networks in amyotrophic lateral sclerosis. NeuroImage: Clinical, 2019, 22, 101707.	1.4	18
58	Behavioral and electrophysiological evidence of opposing lateral visuospatial asymmetries in the upper and lower visual fields. Cortex, 2015, 63, 220-231.	1.1	16
59	Estimation of coherence using the median is robust against EEG artefacts. , 2017, 2017, 3949-3952.		16
60	Including Measures of High Gamma Power Can Improve the Decoding of Natural Speech From EEG. Frontiers in Human Neuroscience, 2020, 14, 130.	1.0	16
61	Different spatioâ€temporal electroencephalography features drive the successful decoding of binaural and monaural cues for sound localization. European Journal of Neuroscience, 2017, 45, 679-689.	1.2	15
62	A gaze independent hybrid-BCI based on visual spatial attention. Journal of Neural Engineering, 2017, 14, 046006.	1.8	15
63	Preferred Tempo and Low-Audio-Frequency Bias Emerge From Simulated Sub-cortical Processing of Sounds With a Musical Beat. Frontiers in Neuroscience, 2018, 12, 349.	1.4	14
64	Modulation of early cortical processing during divided attention to nonâ€contiguous locations. European Journal of Neuroscience, 2014, 39, 1499-1507.	1.2	13
65	Delayed P100-Like Latencies in Multiple Sclerosis: A Preliminary Investigation Using Visual Evoked Spread Spectrum Analysis. PLoS ONE, 2016, 11, e0146084.	1.1	13
66	Impaired auditory selective attention ameliorated by cognitive training with graded exposure to noise in patients with traumatic brain injury. Neuropsychologia, 2015, 75, 74-87.	0.7	12
67	Generation of the VESPA response to rapid contrast fluctuations is dominated by striate cortex: Evidence from retinotopic mapping. Neuroscience, 2012, 218, 226-234.	1.1	11
68	The cortical representation of the speech envelope is earlier for audiovisual speech than audio speech. Journal of Neurophysiology, 2014, 111, 1400-1408.	0.9	11
69	Isolating early cortical generators of visual-evoked activity: a systems identification approach. Experimental Brain Research, 2012, 220, 191-199.	0.7	9
70	Investigating the temporal dynamics of auditory cortical activation to silent lipreading. , 2015, , .		9
71	Isolating Neural Indices of Continuous Speech Processing at the Phonetic Level. Advances in Experimental Medicine and Biology, 2016, 894, 337-345.	0.8	9
72	Comparing linear and quadratic models of the human auditory system using EEG. , 2011, 2011, 4171-4.		8

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73	Decoding of attentional selection in a cocktail party environment from single-trial EEG is robust to task. , 2014, 2014, 1318-21.		6
74	The effects of attention and visual input on the representation of natural speech in EEG. , 2013, 2013, 2800-3.		5
75	Can Visual Evoked Potentials be used in Biometric Identification?. , 2006, 2006, 5575-8.		4
76	Reply to Skottun & Skoyles. On interpreting responses to low contrast stimuli in terms of magnocellular activity â€“ A few remarks. Vision Research, 2010, 50, 991-994.	0.7	3
77	Endogenous auditory frequency-based attention modulates electroencephalogram-based measures of obligatory sensory activity in humans. NeuroReport, 2014, 25, 219-225.	0.6	3
78	Improved decoding of attentional selection in a cocktail party environment with EEG via automatic selection of relevant independent components. , 2015, 2015, 5740-3.		3
79	Neuroscience: Great Expectations atÂtheÂSpeechâ€“Language Interface. Current Biology, 2018, 28, R1396-R1398.	1.8	3
80	A Spectrum of Colors: Investigating the Temporal Frequency Characteristics of the Human Visual System Using a System Identification Approach. , 2006, 2006, 3720-3.		2
81	Modeling the human visual system using the white-noise approach. , 2009, , .		2
82	The relationship between optimal and biologically plausible decoding of stimulus velocity in the retina. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2009, 26, B25.	0.8	2
83	Neuroscience: The Rhythms of Speech Understanding. Current Biology, 2018, 28, R105-R108.	1.8	2
84	Eliciting Audio Evoked Potentials Using Continuous Stimuli. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4264-7.	0.5	1
85	Extracting separate responses to simultaneously presented continuous auditory stimuli: An auditory attention study.. , 2009, , .		1
86	Towards a gaze-independent hybrid-BCI based on SSVEPs, alpha-band modulations and the P300. , 2014, 2014, 1322-5.		1
87	Reverse Correlation and the VESPA Method. , 2009, , 1-20.		1
88	Estimation of the impulse response of the visual system using stochastic modulation of stimulus spatial frequency. , 2009, , .		0
89	A dynamical system model for neural tracking of speech with EEG. , 2013, , .		0