

# Rhodri Cusack

## List of Publications by Year in descending order

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Version: 2024-02-01

103  
papers

6,890  
citations

76326

40  
h-index

71685

76  
g-index

117  
all docs

117  
docs citations

117  
times ranked

7548  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Cambridge Centre for Ageing and Neuroscience (Cam-CAN) data repository: Structural and functional MRI, MEG, and cognitive data from a cross-sectional adult lifespan sample. <i>NeuroImage</i> , 2017, 144, 262-269.	4.2	487
2	The Cambridge Centre for Ageing and Neuroscience (Cam-CAN) study protocol: a cross-sectional, lifespan, multidisciplinary examination of healthy cognitive ageing. <i>BMC Neurology</i> , 2014, 14, 204.	1.8	430
3	Listening to Your Heart. <i>Psychological Science</i> , 2010, 21, 1835-1844.	3.3	387
4	Top-Down Activation of Shape-Specific Population Codes in Visual Cortex during Mental Imagery. <i>Journal of Neuroscience</i> , 2009, 29, 1565-1572.	3.6	282
5	Effects of attention and unilateral neglect on auditory stream segregation.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2001, 27, 115-127.	0.9	272
6	New Robust 3-D Phase Unwrapping Algorithms: Application to Magnetic Field Mapping and Undistorting Echoplanar Images. <i>NeuroImage</i> , 2002, 16, 754-764.	4.2	237
7	Effects of Location, Frequency Region, and Time Course of Selective Attention on Auditory Scene Analysis.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2004, 30, 643-656.	0.9	236
8	The Intraparietal Sulcus and Perceptual Organization. <i>Journal of Cognitive Neuroscience</i> , 2005, 17, 641-651.	2.3	214
9	An Evaluation of the Use of Magnetic Field Maps to Undistort Echo-Planar Images. <i>NeuroImage</i> , 2003, 18, 127-142.	4.2	205
10	Fluid intelligence loss linked to restricted regions of damage within frontal and parietal cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14899-14902.	7.1	183
11	Attentional Functions of Parietal and Frontal Cortex. <i>Cerebral Cortex</i> , 2005, 15, 1469-1484.	2.9	177
12	How does an fMRI voxel sample the neuronal activity pattern: Compact-kernel or complex spatiotemporal filter?. <i>NeuroImage</i> , 2010, 49, 1965-1976.	4.2	168
13	Adjusting for global effects in voxel-based morphometry: Gray matter decline in normal aging. <i>NeuroImage</i> , 2012, 60, 1503-1516.	4.2	166
14	Improved noise-immune phase-unwrapping algorithm. <i>Applied Optics</i> , 1995, 34, 781.	2.1	159
15	A common neural code for similar conscious experiences in different individuals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14277-14282.	7.1	143
16	Effects of attention and unilateral neglect on auditory stream segregation.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2001, 27, 115-127.	0.9	129
17	Quantifying Sources of Variability in Infancy Research Using the Infant-Directed-Speech Preference. <i>Advances in Methods and Practices in Psychological Science</i> , 2020, 3, 24-52.	9.4	124
18	Automatic analysis (aa): efficient neuroimaging workflows and parallel processing using Matlab and XML. <i>Frontiers in Neuroinformatics</i> , 2014, 8, 90.	2.5	116

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19	Effects of differences in timbre on sequential grouping. <i>Perception &amp; Psychophysics</i> , 2000, 62, 1112-1120.	2.3	109
20	Flexible, Capacity-Limited Activity of Posterior Parietal Cortex in Perceptual as well as Visual Short-Term Memory Tasks. <i>Cerebral Cortex</i> , 2008, 18, 1788-1798.	2.9	104
21	Categorical and Dimensional Reports of Experienced Affect to Emotion-Inducing Pictures in Depression.. <i>Journal of Abnormal Psychology</i> , 2004, 113, 654-660.	1.9	91
22	Disentangling Representations of Object and Grasp Properties in the Human Brain. <i>Journal of Neuroscience</i> , 2016, 36, 7648-7662.	3.6	88
23	Time to wave good-bye to phase scrambling: Creating controlled scrambled images using diffeomorphic transformations. <i>Journal of Vision</i> , 2014, 14, 6-6.	0.3	77
24	Idiosyncratic responding during movie-watching predicted by age differences in attentional control. <i>Neurobiology of Aging</i> , 2015, 36, 3045-3055.	3.1	74
25	Stimulus-specific suppression preserves information in auditory short-term memory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 12961-12966.	7.1	72
26	The Brain's Silent Messenger: Using Selective Attention to Decode Human Thought for Brain-Based Communication. <i>Journal of Neuroscience</i> , 2013, 33, 9385-9393.	3.6	71
27	Encoding strategy and not visual working memory capacity correlates with intelligence. <i>Psychonomic Bulletin and Review</i> , 2009, 16, 641-647.	2.8	68
28	An Information Theoretic Characterisation of Auditory Encoding. <i>PLoS Biology</i> , 2007, 5, e288.	5.6	67
29	Cross-Modal and Non-Sensory Influences on Auditory Streaming. <i>Perception</i> , 2003, 32, 1393-1402.	1.2	63
30	An objective measurement of the build-up of auditory streaming and of its modulation by attention.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2011, 37, 1253-1262.	0.9	63
31	Conjunctive Coding of Complex Object Features. <i>Cerebral Cortex</i> , 2016, 26, 2271-2282.	2.9	63
32	Perceptual asymmetries in audition.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2003, 29, 713-725.	0.9	60
33	Neglect Between but Not Within Auditory Objects. <i>Journal of Cognitive Neuroscience</i> , 2000, 12, 1056-1065.	2.3	58
34	Encoding strategy accounts for individual differences in change detection measures of VSTM. <i>Neuropsychologia</i> , 2011, 49, 1476-1486.	1.6	54
35	Adult-like processing of naturalistic sounds in auditory cortex by 3- and 9-month old infants. <i>NeuroImage</i> , 2017, 157, 623-634.	4.2	53
36	An evaluation of the use of passive shimming to improve frontal sensitivity in fMRI. <i>NeuroImage</i> , 2005, 24, 82-91.	4.2	49

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37	Tunes stuck in your brain: The frequency and affective evaluation of involuntary musical imagery correlate with cortical structure. <i>Consciousness and Cognition</i> , 2015, 35, 66-77.	1.5	48
38	Discrete Object Representation, Attention Switching, and Task Difficulty in the Parietal Lobe. <i>Journal of Cognitive Neuroscience</i> , 2010, 22, 32-47.	2.3	46
39	Expert and crowd-sourced validation of an individualized sleep spindle detection method employing complex demodulation and individualized normalization. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 507.	2.0	46
40	Functional diversity of brain networks supports consciousness and verbal intelligence. <i>Scientific Reports</i> , 2018, 8, 13259.	3.3	45
41	Modulation of spatial bias in the dual task paradigm: Evidence from patients with unilateral parietal lesions and controls. <i>Neuropsychologia</i> , 2006, 44, 1325-1335.	1.6	42
42	Flexible Information Coding in Human Auditory Cortex during Perception, Imagery, and STM of Complex Sounds. <i>Journal of Cognitive Neuroscience</i> , 2015, 27, 1322-1333.	2.3	42
43	Age-related reduction in motor adaptation: brain structural correlates and the role of explicit memory. <i>Neurobiology of Aging</i> , 2020, 90, 13-23.	3.1	42
44	Strong and specific associations between cardiovascular risk factors and white matter micro- and macrostructure in healthy aging. <i>Neurobiology of Aging</i> , 2019, 74, 46-55.	3.1	38
45	Automated post-hoc noise cancellation tool for audio recordings acquired in an MRI scanner. <i>Human Brain Mapping</i> , 2005, 24, 299-304.	3.6	36
46	Branch cut surface placement for unwrapping of undersampled three-dimensional phase data: application to magnetic resonance imaging arterial flow mapping. <i>Applied Optics</i> , 2006, 45, 2711.	2.1	34
47	Disruption to functional networks in neonates with perinatal brain injury predicts motor skills at 8 months. <i>NeuroImage: Clinical</i> , 2018, 18, 399-406.	2.7	34
48	Methodological challenges in the comparison of infant fMRI across age groups. <i>Developmental Cognitive Neuroscience</i> , 2018, 33, 194-205.	4.0	34
49	Cortical Mechanisms for the Segregation and Representation of Acoustic Textures. <i>Journal of Neuroscience</i> , 2010, 30, 2070-2076.	3.6	31
50	Dissociable contributions of the mid-ventrolateral frontal cortex and the medial temporal lobe system to human memory. <i>NeuroImage</i> , 2006, 31, 1790-1801.	4.2	30
51	The effects of time-on-task and concurrent cognitive load on normal visuospatial bias.. <i>Neuropsychology</i> , 2008, 22, 545-552.	1.3	30
52	Extending the dynamic range of phase contrast magnetic resonance velocity imaging using advanced higher-dimensional phase unwrapping algorithms. <i>Journal of the Royal Society Interface</i> , 2006, 3, 415-427.	3.4	29
53	Online recruitment and testing of infants with Mechanical Turk. <i>Journal of Experimental Child Psychology</i> , 2017, 156, 168-178.	1.4	28
54	Effects of Similarity in Bandwidth on the Auditory Sequential Streaming of Two-Tone Complexes. <i>Perception</i> , 1999, 28, 1281-1289.	1.2	27

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55	The P300 as a Marker of Waning Attention and Error Propensity. <i>Computational Intelligence and Neuroscience</i> , 2007, 2007, 1-9.	1.7	27
56	Points in Mental Space: an Interdisciplinary Study of Imagery in Movement Creation. <i>Dance Research</i> , 2011, 29, 404-432.	0.1	26
57	Visual short-term memory through the lifespan: Preserved benefits of context and metacognition.. <i>Psychology and Aging</i> , 2018, 33, 841-854.	1.6	26
58	Assessing residual reasoning ability in overtly non-communicative patients using fMRI. <i>NeuroImage: Clinical</i> , 2013, 2, 174-183.	2.7	25
59	The Temporal Evolution of Electromagnetic Markers Sensitive to the Capacity Limits of Visual Short-Term Memory. <i>Frontiers in Human Neuroscience</i> , 2011, 5, 18.	2.0	24
60	Using automatic face analysis to score infant behaviour from video collected online. , 2019, 54, 1-12.		24
61	Multivoxel Patterns Reveal Functionally Differentiated Networks Underlying Auditory Feedback Processing of Speech. <i>Journal of Neuroscience</i> , 2013, 33, 4339-4348.	3.6	23
62	Physical Activity Predicts Population-Level Age-Related Differences in Frontal White Matter. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020, 75, 236-243.	3.6	22
63	Do Patients Thought to Lack Consciousness Retain the Capacity for Internal as Well as External Awareness?. <i>Frontiers in Neurology</i> , 2018, 9, 492.	2.4	20
64	Auditory Midline and Spatial Discrimination in Patients with Unilateral Neglect. <i>Cortex</i> , 2001, 37, 706-709.	2.4	17
65	Experience Transforms Conjunctive Object Representations: Neural Evidence for Unitization After Visual Expertise. <i>Cerebral Cortex</i> , 2020, 30, 2721-2739.	2.9	16
66	Auditory Perceptual Organization Inside and Outside the Laboratory. , 2004, , 15-48.		16
67	A neural window on the emergence of cognition. <i>Annals of the New York Academy of Sciences</i> , 2016, 1369, 7-23.	3.8	15
68	Cognitive Diversity in a Healthy Aging Cohort: Cross-Domain Cognition in the Cam-CAN Project. <i>Journal of Aging and Health</i> , 2020, 32, 1029-1041.	1.7	15
69	Optimizing Stimulation and Analysis Protocols for Neonatal fMRI. <i>PLoS ONE</i> , 2015, 10, e0120202.	2.5	15
70	Semantic and emotional content of imagined representations in human occipitotemporal cortex. <i>Scientific Reports</i> , 2016, 6, 20232.	3.3	14
71	Naturalistic Audio-Movies and Narrative Synchronize "Visual" Cortices across Congenitally Blind But Not Sighted Individuals. <i>Journal of Neuroscience</i> , 2019, 39, 8940-8948.	3.6	14
72	Lessons from infant learning for unsupervised machine learning. <i>Nature Machine Intelligence</i> , 2022, 4, 510-520.	16.0	14

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73	Are the senses enough for sense? Early high-level feedback shapes our comprehension of multisensory objects. <i>Frontiers in Integrative Neuroscience</i> , 2012, 6, 82.	2.1	13
74	A Global Perspective on Testing Infants Online: Introducing ManyBabies-AtHome. <i>Frontiers in Psychology</i> , 2021, 12, 703234.	2.1	13
75	Effects of differences in the pattern of amplitude envelopes across harmonics on auditory stream segregation. <i>Hearing Research</i> , 2004, 193, 95-104.	2.0	12
76	Performance measures of auditory organization. , 2005, , 202-210.		12
77	Why does language not emerge until the second year?. <i>Hearing Research</i> , 2018, 366, 75-81.	2.0	12
78	An investigation of the implicit control of the processing of negative pictures.. <i>Emotion</i> , 2008, 8, 828-837.	1.8	11
79	Seeing different objects in different ways: Measuring ventral visual tuning to sensory and semantic features with dynamically adaptive imaging. <i>Human Brain Mapping</i> , 2012, 33, 387-397.	3.6	11
80	Vascular contributions to pattern analysis: Comparing gradient and spin echo fMRI at 3T. <i>NeuroImage</i> , 2011, 56, 643-650.	4.2	10
81	Objective Measures of Auditory Scene Analysis. , 2010, , 507-519.		10
82	Typical and disrupted brain circuitry for conscious awareness in full-term and preterm infants. <i>Brain Communications</i> , 2022, 4, fcac071.	3.3	10
83	Robust unwrapping algorithm for three-dimensional phase volumes of arbitrary shape containing knotted phase singularity loops. <i>Optical Engineering</i> , 2007, 46, 085601.	1.0	9
84	Strength of Retinotopic Representation of Visual Memories is Modulated by Strategy. <i>Cerebral Cortex</i> , 2014, 24, 281-292.	2.9	9
85	The neural basis of precise visual short-term memory for complex recognisable objects. <i>NeuroImage</i> , 2017, 159, 131-145.	4.2	9
86	In vivo measurements of blood viscosity and wall stiffness in the carotid using PC-MRI. <i>European Journal of Computational Mechanics</i> , 2009, 18, 9-20.	0.6	8
87	Animacy and real-world size shape object representations in the human medial temporal lobes. <i>Human Brain Mapping</i> , 2018, 39, 3779-3792.	3.6	8
88	The fronto-parietal network is not a flexible hub during naturalistic cognition. <i>Human Brain Mapping</i> , 2022, 43, 750-759.	3.6	8
89	Using Functional Magnetic Resonance Imaging to Detect Preserved Function in a Preterm Infant with Brain Injury. <i>Journal of Pediatrics</i> , 2017, 189, 213-217.e1.	1.8	7
90	Evaluating Affordable Cranial Ultrasonography in East African Neonatal Intensive Care Units. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 119-128.	1.5	6

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91	Auditory structural connectivity in preterm and healthy term infants during the first postnatal year. <i>Developmental Psychobiology</i> , 2018, 60, 256-264.	1.6	6
92	Brainstem shape is affected by clinical course in the neonatal intensive care unit. <i>NeuroImage: Clinical</i> , 2017, 15, 62-70.	2.7	5
93	Customised Cytoarchitectonic Probability Maps Using Deformable Registration: Primary Auditory Cortex. , 2007, 10, 760-768.		5
94	Effects of Attention on Auditory Perceptual Organization. , 2005, , 317-323.		4
95	Online testing in developmental science: A guide to design and implementation. <i>Advances in Child Development and Behavior</i> , 2022, 62, 93-125.	1.3	4
96	Naturalistic stimuli reveal a sensitive period in cross modal responses of visual cortex: Evidence from adult-onset blindness. <i>Neuropsychologia</i> , 2022, 172, 108277.	1.6	3
97	Is susceptibility to perceptual migration and fusion modality-specific or multimodal?. <i>Neuropsychologia</i> , 2006, 44, 693-710.	1.6	2
98	Rapid and coarse face detection: With a lack of evidence for a nasal-temporal asymmetry. <i>Attention, Perception, and Psychophysics</i> , 2020, 82, 1883-1895.	1.3	2
99	Altered activation and functional asymmetry of exner's area but not the visual word form area in a child with sudden-onset, persistent mirror writing. <i>Neuropsychologia</i> , 2018, 117, 322-331.	1.6	1
100	Resources required for processing ambiguous complex features in vision and audition are modality specific. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 2014, 14, 336-353.	2.0	0
101	Neuroimaging of the Mind's Ear Using Representational Similarity Analysis. , 2015, , 229-237.		0
102	Perceptual segregation by timbre: Streaming by bandwidth but not periodicity. <i>Journal of the Acoustical Society of America</i> , 1996, 100, 2752-2752.	1.1	0
103	Robust three-dimensional phase unwrapping algorithm for phase contrast magnetic resonance velocity imaging. , 2006, , 74-81.		0