Joseph R Madsen

List of Publications by Year
in descending order

140 papers	11,786 citations	50170 46 h-index	30848 102 g-index
148 all docs	148 docs citations	148 times ranked	12002 citing authors

#	Article	IF	Citations
1	Presurgical accuracy of dipole clustering in MRI-negative pediatric patients with epilepsy: Validation against intracranial EEG and resection. Clinical Neurophysiology, 2022, 141, 126-138.	0.7	23
2	Novel User-Friendly Application for MRI Segmentation of Brain Resection following Epilepsy Surgery. Diagnostics, 2022, 12, 1017.	1.3	5
3	Single-stage resection of bottom-of-a-sulcus dysplasia involving eloquent cortex using navigated transcranial magnetic stimulation and intraoperative modalities. Child's Nervous System, 2022, , 1.	0.6	0
4	Complete Corpus Callosotomy for Refractory Epilepsy in Children: a video article. World Neurosurgery, 2022, , .	0.7	1
5	Virtual implantation using conventional scalp EEG delineates seizure onset and predicts surgical outcome in children with epilepsy. Clinical Neurophysiology, 2022, 139, 49-57.	0.7	3
6	Posterior quadrant disconnection for refractory epilepsy: how I do it. Acta Neurochirurgica, 2022, , .	0.9	2
7	Travelling spindles create necessary conditions for spike-timing-dependent plasticity in humans. Nature Communications, 2021, 12, 1027.	5.8	45
8	Microscale Physiological Events on the Human Cortical Surface. Cerebral Cortex, 2021, 31, 3678-3700.	1.6	29
9	Noninvasive Mapping of Ripple Onset Predicts Outcome in Epilepsy Surgery. Annals of Neurology, 2021, 89, 911-925.	2.8	29
10	Source imaging of seizure onset predicts surgical outcome in pediatric epilepsy. Clinical Neurophysiology, 2021, 132, 1622-1635.	0.7	15
11	Changes in the Functional Brain Network of Children Undergoing Repeated Epilepsy Surgery: An EEG Source Connectivity Study. Diagnostics, 2021, 11, 1234.	1.3	9
12	Mesoscopic physiological interactions in the human brain reveal small-world properties. Cell Reports, 2021, 36, 109585.	2.9	7
13	Extensions of Granger Causality Calculations on Brain Networks for Efficient and Accurate Seizure Focus Identification via iEEGs. Brain Sciences, 2021, 11, 1167.	1.1	2
14	Magnetic resonance imagingâ€“guided laser-induced thermal therapy for functional hemispherotomy in a child with refractory epilepsy and multiple medical comorbidities. Journal of Neurosurgery: Pediatrics, 2021, 27, 30-35.	0.8	12
15	Anesthetic management and outcomes for MRIâ€guided laser interstitial thermal therapy (LITT) for seizure focus in pediatrics: A singleâ€centre experience with 10 consecutive patients. Paediatric Anaesthesia, 2021, 31, 234-236.	0.6	3
16	A Standardized Electrode Nomenclature for Stereoelectroencephalography Applications. Journal of Clinical Neurophysiology, 2021, 38, 509-515.	0.9	3
17	Mapping Functional Connectivity of Epileptogenic Networks through Virtual Implantation. , 2021, 2021, 408-411.		4
18	Electric Source Imaging on Intracranial EEG Localizes Spatiotemporal Propagation of Interictal Spikes in Children with Epilepsy. , 2021, 2021, 2668-2671.		1

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19	Mapping Propagation of Interictal Spikes, Ripples, and Fast Ripples in Intracranial EEG of Children with Refractory Epilepsy. , 2021, 2021, 194-197.		2
20	Early Detection of Human Epileptic Seizures Based on Intracortical Microelectrode Array Signals. IEEE Transactions on Biomedical Engineering, 2020, 67, 817-831.	2.5	20
21	Corpus Callosotomy for Refractory Epilepsy in Aicardi Syndrome: Case Report and Focused Review of the Literature. World Neurosurgery, 2020, 142, 450-455.	0.7	4
22	Pilot Study of Neurodevelopmental Impact of Early Epilepsy Surgery in Tuberous Sclerosis Complex. Pediatric Neurology, 2020, 109, 39-46.	1.0	23
23	Diagnostic Accuracy of Non-Invasive Thermal Evaluation of Ventriculoperitoneal Shunt Flow in Shunt Malfunction: A Prospective, Multi-Site, Operator-Blinded Study. Neurosurgery, 2020, 87, 939-948.	0.6	4
24	Drugâ€Responsive Inhomogeneous Cortical Modulation by Direct Current Stimulation. Annals of Neurology, 2020, 88, 489-502.	2.8	16
25	Scalp ripples as prognostic biomarkers of epileptogenicity in pediatric surgery. Annals of Clinical and Translational Neurology, 2020, 7, 329-342.	1.7	35
26	Ictal and interictal source imaging on intracranial EEG predicts epilepsy surgery outcome in children with focal cortical dysplasia. Clinical Neurophysiology, 2020, 131, 734-743.	0.7	26
27	A Noninvasive Retrograde Flushing System for Shunted Hydrocephalus: Initial Case Series of 25 Patients. Cureus, 2020, 12, e8940.	0.2	2
28	Noninvasive Thermal Evaluation of Ventriculoperitoneal Shunt Patency and Cerebrospinal Fluid Flow Using a Flow Enhancing Device. Neurosurgery, 2019, 85, 240-249.	0.6	7
29	Intracortical neural activity distal to seizure-onset-areas predicts human focal seizures. PLoS ONE, 2019, 14, e0211847.	1.1	8
30	Neural Interactions Underlying Visuomotor Associations in the Human Brain. Cerebral Cortex, 2019, 29, 4551-4567.	1.6	3
31	Delay differential analysis for dynamical sleep spindle detection. Journal of Neuroscience Methods, 2019, 316, 12-21.	1.3	11
32	Assessing the localization accuracy and clinical utility of electric and magnetic source imaging in children with epilepsy. Clinical Neurophysiology, 2019, 130, 491-504.	0.7	62
33	Noninvasive Localization of High-Frequency Oscillations in Children with Epilepsy: Validation against Intracranial Gold-Standard. , 2019, 2019, 1555-1558.		10
34	Somatic SLC35A2 variants in the brain are associated with intractable neocortical epilepsy. Annals of Neurology, 2018, 83, 1133-1146.	2.8	95
35	Magnetoencephalographic Spike Analysis in Patients With Focal Cortical Dysplasia: What Defines a â€œDipole Clusterâ€?. Pediatric Neurology, 2018, 83, 25-31.	1.0	9
36	Heterogeneous Origins of Human Sleep Spindles in Different Cortical Layers. Journal of Neuroscience, 2018, 38, 3013-3025.	1.7	40

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37	Superficial Slow Rhythms Integrate Cortical Processing in Humans. Scientific Reports, 2018, 8, 2055.	1.6	56
38	What is changing when: Decoding visual information in movies from human intracranial recordings. NeuroImage, 2018, 180, 147-159.	2.1	16
39	Granger Causality Analysis of Interictal iEEG Predicts Seizure Focus and Ultimate Resection. Neurosurgery, 2018, 82, 99-109.	0.6	35
40	VEGF Signaling in Neurological Disorders. International Journal of Molecular Sciences, 2018, 19, 275.	1.8	96
41	Surgical resection of ripple onset predicts outcome in pediatric epilepsy. Annals of Neurology, 2018, 84, 331-346.	2.8	51
42	Magnetoencephalographic Mapping of Epileptic Spike Population Using Distributed Source Analysis. Journal of Clinical Neurophysiology, 2018, 35, 339-345.	0.9	6
43	Developmental Regulation of Mitochondrial Apoptosis by c-Myc Governs Age- and Tissue-Specific Sensitivity to Cancer Therapeutics. Cancer Cell, 2017, 31, 142-156.	7.7	190
44	Neuroimaging of Children With Surgically Treated Hydrocephalus: A Practical Approach. American Journal of Roentgenology, 2017, 208, 413-419.	1.0	10
45	Somatic Mutations Activating the mTOR Pathway in Dorsal Telencephalic Progenitors Cause a Continuum of Cortical Dysplasias. Cell Reports, 2017, 21, 3754-3766.	2.9	247
46	Current and Emerging Potential of Magnetoencephalography in the Detection and Localization of High-Frequency Oscillations in Epilepsy. Frontiers in Neurology, 2017, 8, 14.	1.1	53
47	Direct current stimulation induces mGluR5â€dependent neocortical plasticity. Annals of Neurology, 2016, 80, 233-246.	2.8	50
48	Rasmussen encephalitis tissue transfer program. Epilepsia, 2016, 57, 1005-1007.	2.6	3
49	Interictal High Frequency Oscillations Detected with Simultaneous Magnetoencephalography and Electroencephalography as Biomarker of Pediatric Epilepsy. Journal of Visualized Experiments, 2016, , .	0.2	46
50	Combining task-evoked and spontaneous activity to improve pre-operative brain mapping with fMRI. NeuroImage, 2016, 124, 714-723.	2.1	24
51	The role of simulation in neurosurgery. Child's Nervous System, 2016, 32, 43-54.	0.6	136
52	Cascade of neural processing orchestrates cognitive control in human frontal cortex. ELife, 2016, 5, .	2.8	33
53	Autonomic changes following generalized tonic clonic seizures: An analysis of adult and pediatric patients with epilepsy. Epilepsy Research, 2015, 115, 113-118.	0.8	96
54	Laminar profile of spontaneous and evoked theta: Rhythmic modulation of cortical processing during word integration. Neuropsychologia, 2015, 76, 108-124.	0.7	43

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55	Sensitivity to timing and order in human visual cortex. Journal of Neurophysiology, 2015, 113, 1656-1669.	0.9	4
56	Microscale spatiotemporal dynamics during neocortical propagation of human focal seizures. NeuroImage, 2015, 122, 114-130.	2.1	41
57	Demonstration that a new flow sensor can operate in the clinical range for cerebrospinal fluid flow. Sensors and Actuators A: Physical, 2015, 234, 223-231.	2.0	9
58	VEGF: A potential target for hydrocephalus. Cell and Tissue Research, 2014, 358, 667-683.	1.5	7
59	Passive fMRI mapping of language function for pediatric epilepsy surgical planning: Validation using Wada, ECS, and FMAER. Epilepsy Research, 2014, 108, 1874-1888.	0.8	30
60	Neural Dynamics Underlying Target Detection in the Human Brain. Journal of Neuroscience, 2014, 34, 3042-3055.	1.7	19
61	Outcomes of vagal nerve stimulation in a pediatric population: A single center experience. Seizure: the Journal of the British Epilepsy Association, 2014, 23, 105-111.	0.9	24
62	Clinical value of magnetoencephalographic spike propagation represented by spatiotemporal source analysis: Correlation with surgical outcome. Epilepsy Research, 2014, 108, 280-288.	0.8	22
63	Electrode localization for planning surgical resection of the epileptogenic zone in pediatric epilepsy. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 91-105.	1.7	32
64	Neuronal Ensemble Synchrony during Human Focal Seizures. Journal of Neuroscience, 2014, 34, 9927-9944.	1.7	103
65	Spatiotemporal Dynamics Underlying Object Completion in Human Ventral Visual Cortex. Neuron, 2014, 83, 736-748.	3.8	75
66	Comparison of Rapid Cranial MRI to CT for Ventricular Shunt Malfunction. Pediatrics, 2014, 134, e47-e54.	1.0	52
67	Surgery for Intractable Epilepsy Due to Unilateral Brain Disease: A Retrospective Study Comparing Hemispherectomy Techniques. Pediatric Neurology, 2014, 51, 336-343.	1.0	35
68	Decrease in gamma-band activity tracks sequence learning. Frontiers in Systems Neuroscience, 2014, 8, 222.	1.2	7
69	The frequency modulated auditory evoked response (FMAER), a technical advance for study of childhood language disorders: cortical source localization and selected case studies. BMC Neurology, 2013, 13, 12.	0.8	19
70	VEGF, which is elevated in the CSF of patients with hydrocephalus, causes ventriculomegaly and ependymal changes in rats. Experimental Neurology, 2013, 247, 703-709.	2.0	31
71	Human seizures self-terminate across spatial scales via a critical transition. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21116-21121.	3.3	182
72	Impaired pulsation absorber mechanism in idiopathic normal pressure hydrocephalus. Journal of Neurosurgery, 2012, 117, 1189-1196.	0.9	22

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73	Spatiotemporal dynamics of neocortical excitation and inhibition during human sleep. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1731-1736.	3.3	166
74	Temporal stability of visually selective responses in intracranial field potentials recorded from human occipital and temporal lobes. Journal of Neurophysiology, 2012, 108, 3073-3086.	0.9	11
75	Rapid fragmentation of neuronal networks at the onset of propofol-induced unconsciousness. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3377-86.	3.3	366
76	Treatment of Intractable Epilepsy by Electrical Stimulation of the Vagus Nerve. , 2012, , 1301-1308.		0
77	Individualized localization and cortical surface-based registration of intracranial electrodes. NeuroImage, 2012, 59, 3563-3570.	2.1	213
78	Single-neuron dynamics in human focal epilepsy. Nature Neuroscience, 2011, 14, 635-641.	7.1	449
79	The pulsating brain: A review of experimental and clinical studies of intracranial pulsatility. Fluids and Barriers of the CNS, 2011, 8, 5.	2.4	338
80	Evaluation of the ShuntCheck Noninvasive Thermal Technique for Shunt Flow Detection in Hydrocephalic Patients. Neurosurgery, 2011, 68, 198-205.	0.6	34
81	Localization of focal epileptic discharges using functional connectivity magnetic resonance imaging. Journal of Neurosurgery, 2011, 114, 1693-1697.	0.9	80
82	A dynamic nonlinear relationship between the static and pulsatile components of intracranial pressure in patients with subarachnoid hemorrhage. Journal of Neurosurgery, 2010, 112, 616-625.	0.9	24
83	Robust Selectivity to Two-Object Images in Human Visual Cortex. Current Biology, 2010, 20, 872-879.	1.8	37
84	Modeling of blood flow in arterial trees. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 612-623.	6.6	24
85	Response to Comment on â€œThe Human K-Complex Represents an Isolated Cortical Down-Stateâ€. Science, 2010, 330, 35-35.	6.0	3
86	Heterogeneous neuronal firing patterns during interictal epileptiform discharges in the human cortex. Brain, 2010, 133, 1668-1681.	3.7	168
87	Alterations of pulsation absorber characteristics in experimental hydrocephalus. Journal of Neurosurgery: Pediatrics, 2010, 6, 159-170.	0.8	32
88	Right-lateralized Brain Oscillations in Human Spatial Navigation. Journal of Cognitive Neuroscience, 2010, 22, 824-836.	1.1	51
89	Propagation of epileptic spikes reconstructed from spatiotemporal magnetoencephalographic and electroencephalographic source analysis. NeuroImage, 2010, 50, 217-222.	2.1	62
90	Urological outcome following multiple repeat spinal cord untethering operations. Journal of Neurosurgery: Pediatrics, 2009, 4, 275-279.	0.8	12

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91	Task-free presurgical mapping using functional magnetic resonance imaging intrinsic activity. Journal of Neurosurgery, 2009, 111, 746-754.	0.9	117
92	Dynamic statistical parametric mapping for analyzing ictal magnetoencephalographic spikes in patients with intractable frontal lobe epilepsy. Epilepsy Research, 2009, 85, 279-286.	0.8	39
93	The Human K-Complex Represents an Isolated Cortical Down-State. Science, 2009, 324, 1084-1087.	6.0	328
94	Timing, Timing, Timing: Fast Decoding of Object Information from Intracranial Field Potentials in Human Visual Cortex. Neuron, 2009, 62, 281-290.	3.8	353
95	Magnetoencephalographic Analysis inÂPatients With VagusÂNerve Stimulator. Pediatric Neurology, 2009, 41, 383-387.	1.0	25
96	Simulation of the human intracranial arterial tree. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2371-2386.	1.6	39
97	Intracranial pressure waves: characterization of a pulsation absorber with notch filter properties using systems analysis. Journal of Neurosurgery: Pediatrics, 2008, 2, 83-94.	0.8	44
98	Priorities for hydrocephalus research: report from a National Institutes of Healthâ€“sponsored workshop. Journal of Neurosurgery: Pediatrics, 2007, 107, 345-357.	0.8	48
99	Outcome following multiple repeated spinal cord untethering operations. Journal of Neurosurgery: Pediatrics, 2007, 106, 434-438.	0.8	25
100	Gamma Oscillations Distinguish True From False Memories. Psychological Science, 2007, 18, 927-932.	1.8	123
101	Human neocortical oscillations exhibit theta phase differences between encoding and retrieval. NeuroImage, 2006, 31, 1352-1358.	2.1	117
102	Electroencephalography in epilepsy surgery planning. Child's Nervous System, 2006, 22, 760-765.	0.6	10
103	What we donâ€™t (but should) know about hydrocephalus. Journal of Neurosurgery: Pediatrics, 2006, 104, 157-159.	0.8	35
104	Hippocampal and Neocortical Gamma Oscillations Predict Memory Formation in Humans. Cerebral Cortex, 2006, 17, 1190-1196.	1.6	349
105	Cerebrospinal fluid pulsatility and hydrocephalus: the fourth circulation. Clinical Neurosurgery, 2006, 53, 48-52.	0.2	36
106	GMFM 1 year after continuous intrathecal baclofen infusion. Developmental Neurorehabilitation, 2005, 8, 207-213.	1.1	48
107	Long-term outcome in children with moyamoya syndrome after cranial revascularization by pial synangiosis. Journal of Neurosurgery: Pediatrics, 2004, 100, 142-149.	0.8	267
108	Antenatal neurosurgical counseling: approach to the unborn patient. Pediatric Clinics of North America, 2004, 51, 491-505.	0.9	7

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109	Gamma EEG dynamics in neocortex and hippocampus during human wakefulness and sleep. NeuroImage, 2004, 22, 1271-1271.	2.1	0
110	Hip status in cerebral palsy after one year of continuous intrathecal baclofen infusion. Pediatric Neurology, 2004, 30, 163-168.	1.0	52
111	Gamma EEG dynamics in neocortex and hippocampus during human wakefulness and sleep. NeuroImage, 2004, 22, 1271-1280.	2.1	123
112	Pharyngeal Dysesthesia in Refractory Complex Partial Epilepsy: New Seizure or Adverse Effect of Vagal Nerve Stimulation?. Epilepsia, 2003, 44, 855-858.	2.6	6
113	Gamma Oscillations Correlate with Working Memory Load in Humans. Cerebral Cortex, 2003, 13, 1369-1374.	1.6	658
114	Sleep-Dependent Î¸ Oscillations in the Human Hippocampus and Neocortex. Journal of Neuroscience, 2003, 23, 10897-10903.	1.7	269
115	Theta and Gamma Oscillations during Encoding Predict Subsequent Recall. Journal of Neuroscience, 2003, 23, 10809-10814.	1.7	698
116	Human Î¸ Oscillations Related to Sensorimotor Integration and Spatial Learning. Journal of Neuroscience, 2003, 23, 4726-4736.	1.7	381
117	Shunt technology: contemporary concepts and prospects. Clinical Neurosurgery, 2003, 50, 256-67.	0.2	7
118	Vagus nerve stimulation in pediatric epilepsy: a review. Pediatric Neurology, 2001, 25, 368-376.	1.0	50
119	Distinct Patterns of Brain Oscillations Underlie Two Basic Parameters of Human Maze Learning. Journal of Neurophysiology, 2001, 86, 368-380.	0.9	211
120	Gating of Human Theta Oscillations by a Working Memory Task. Journal of Neuroscience, 2001, 21, 3175-3183.	1.7	683
121	Gentle dorsal root retraction and dissection can cause areflexia: Implications for intraoperative monitoring during ?selective? partial dorsal rhizotomy. Muscle and Nerve, 2001, 24, 1352-1358.	1.0	12
122	Theta returns. Current Opinion in Neurobiology, 2001, 11, 739-744.	2.0	484
123	Vagus Nerve Stimulation Therapy in Pediatric Patients With Refractory Epilepsy: Retrospective Study. Journal of Child Neurology, 2001, 16, 843-848.	0.7	179
124	Pathophysiology, prevention, and potential treatment of neural tube defects. , 2000, 6, 6-14.		62
125	The effect of propofol on intraoperative electrocorticography and cortical stimulation during awake craniotomies in children. Paediatric Anaesthesia, 2000, 10, 29-34.	0.6	77
126	Task dependence of human theta: The case for multiple cognitive functions. Neurocomputing, 2000, 32-33, 659-665.	3.5	12

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127	Intrathecal Baclofen for Management of Spastic Cerebral Palsy: Multicenter Trial. Journal of Child Neurology, 2000, 15, 71-77.	0.7	240
128	Human theta oscillations exhibit task dependence during virtual maze navigation. Nature, 1999, 399, 781-784.	13.7	667
129	Using intracranial recordings to study theta. Trends in Cognitive Sciences, 1999, 3, 406-407.	4.0	6
130	Tacrolimus (FK506) Increases Neuronal Expression of GAP-43 and Improves Functional Recovery after Spinal Cord Injury in Rats. Experimental Neurology, 1998, 154, 673-683.	2.0	109
131	Functional Transplantation of the Rat Pituitary Gland. Neurosurgery, 1998, 43, 1157-1163.	0.6	9
132	Molecular Biology of Axonal Outgrowth. Pediatric Neurosurgery, 1997, 27, 113-120.	0.4	11
133	Solitary Fibrous Tumor Presenting As a Symptomatic Intraspinal Mass: Case Report. Neurosurgery, 1997, 40, 844-847.	0.6	55
134	Connections of the hippocampal formation in humans: I. The mossy fiber pathway. , 1997, 385, 325-351.		64
135	Connections of the hippocampal formation in humans: II. The endfolial fiber pathway. Journal of Comparative Neurology, 1997, 385, 352-371.	0.9	45
136	Connections of the hippocampal formation in humans: II. The endfolial fiber pathway. , 1997, 385, 352.		1
137	Nitrous Oxide Depresses the H-Reflex in Children with Cerebral Palsy. Anesthesia and Analgesia, 1995, 80, 239-241.	1.1	13
138	H reflex studies in cerebral palsy patients undergoing partial dorsal rhizotomy. Muscle and Nerve, 1994, 17, 539-549.	1.0	37
139	Cerebrospinal Fluid Anion Transport: Studies of Pertechnetate in Unanesthetized Sheep. Neurosurgery, 1985, 17, 778-783.	0.6	2
140	Limited utility of structural MRI to identify the epileptogenic zone in young children with tuberous sclerosis. Journal of Neuroimaging, 0, , .	1.0	2