

Magnetoencephalography

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Magnetoencephalography is an imaging technique used to measure the magnetic fields produced by electrical activity in the brain via extremely sensitive devices such as superconducting quantum interference devices . These measurements are commonly used in both research and clinical settings. There are many uses for the MEG, including assisting surgeons in localizing a pathology, assisting researchers in determining the function of various parts of the brain, neurofeedback, and others.

Recent Publications on Magnetoencephalography:



- [Ontology for fMRI as a biomedical informatics method.](#)
*Ontological engineering is one of the most challenging topics in...*2nd October, 2008
Functional Brain Imaging Lab, Department of Gerontechnology, National- Magn Reson Med Sci. 2008;7(3):141-55.
- [Auditory word perception in sentence context in reading-disabled children.](#)
*Reading difficulties seem to be related to a phonological deficit that has...*26th September, 2008
aMGH/MIT/HMS Athinoula A. Martinos Center for Biomedical Imaging,- Neuroreport. 2008 Sep 23. ([DOI Direct Link](#))
- [Somatosensory-evoked magnetic fields in examining lip area in speech-disordered children.](#)
*Magnetoencephalography (MEG) is a modern neurophysiological method to...*25th September, 2008
BioMag Laboratory, Helsinki University Central Hospital, HUSLAB, Helsinki,- J Craniofac Surg. 2008 Sep;19(5):1215-20. ([DOI Direct Link](#))
- [Clinical neurophysiology of cortical malformations: magnetoencephalography and electroencephalography.](#)
*Magnetoencephalography (MEG) is a modern neurophysiological method to...*24th September, 2008
The Hospital for Sick Children, University of Toronto, Toronto, Ontario,- Handb Clin Neurol. 2007;87:503-16. ([DOI Direct Link](#))
- [Neural correlates of immediate and delayed word recognition memory: An MEG study.](#)
*We investigated the neural correlates of immediate and delayed word...*23rd September, 2008
Department of Psychology, Sungshin Women's University, Seoul, Korea.- Brain Res. 2008 Sep 3. ([DOI Direct Link](#))
- [Impaired frontal synchronization of spontaneous magnetoencephalographic activity in patients with bipolar disorder.](#)
*Recent functional imaging studies demonstrated that brain exhibit...*13th September, 2008
Department of Mathematics, National Taiwan Normal University, Taipei,- Neurosci Lett. 2008 Sep 3. ([DOI Direct Link](#))
- [Treatment effects of fast ForWord demonstrated by magnetoencephalography \(MEG\) in a child with developmental dyslexia.](#)

- Treatment effects of Fast ForWord, hypothesized to ameliorate temporal...* 11th September, 2008
Department of Psychology, Eastern Michigan University, Ypsilanti, MI- Neurocase. 2007
Oct;13(5):390-401. ([DOI Direct Link](#))
- [Tuberous sclerosis: Localizing the epileptogenic tuber with synthetic aperture magnetometry with excess kurtosis analysis.](#)
The hallmark of tuberous sclerosis is the presence of multiple cortical... 10th September, 2008
Departments of Clinical Neuroscience and Psychiatry, Osaka University- J Clin Neurosci. 2008 Sep 6. ([DOI Direct Link](#))
 - [Effect of amplitude modulation of background noise on auditory-evoked magnetic fields.](#)
Although it is known that amplitude modulation of a background masker... 10th September, 2008
Department of Otolaryngology, Head and Neck Surgery, Graduate School of- Brain Res. 2008 Aug 26. ([DOI Direct Link](#))
 - [Characteristics of MEG and MRI between Taylor's focal cortical dysplasia \(type II\) and other cortical dysplasia: Surgical outcome after complete resection of MEG spike source and MR lesion in pediatric cortical dysplasia.](#)
PURPOSE: Cortical dysplasia (CD) has been classified as Taylor's focal... 9th September, 2008
Diagnostic Imaging, The Hospital for Sick Children, 555 University Avenue,- Epilepsy Res. 2008 Sep 5. ([DOI Direct Link](#))
 - [Aberrant spatiotemporal activation profiles associated with math difficulties in children: a magnetic source imaging study.](#)
The study investigates the relative degree and timing of cortical... 4th September, 2008
Department of Pediatrics, Children's Learning Institute, University of- Neuropsychology. 2008
Sep;22(5):571-84. ([DOI Direct Link](#))
 - [Neural processes of attentional inhibition of return traced with magnetoencephalography.](#)
Inhibition of return (IOR) is a phenomenon that involves reaction times... 3rd September, 2008
Department of Sensory-Motor Integration, National Institute for- Neuroscience. 2008 Aug 9. ([DOI Direct Link](#))
 - [Advances in neuroimaging in patients with epilepsy.](#)
Intractable seizures can have a devastating effect on the development of a... 2nd September, 2008
Department of Diagnostic Imaging, Hospital for Sick Children, Toronto,- Neurosurg Focus. 2008
Sep;25(3):E3. ([DOI Direct Link](#))
 - [Advances in intracranial monitoring.](#)
Intracranial monitoring using electroencephalography (IC-EEG) continues to... 2nd September, 2008
Comprehensive Epilepsy Center, University of Alabama at Birmingham,- Neurosurg Focus. 2008
Sep;25(3):E18. ([DOI Direct Link](#))

Magnetoencephalography Patents:



- 6853186- [Variable permeability magnetic field sensor and method](#)
- 7062391- [Motion compensation in biomagnetic measurement](#)
- 7105824- [High resolution photon emission computed tomographic imaging tool](#)
- 7116102- [SQUID detected NMR and MRI at ultralow fields](#)
- 7120486- [Brain computer interface](#)
- 7130675- [High-resolution magnetoencephalography system and method](#)

- 7145333- [High sensitivity atomic magnetometer and methods for using same](#)
- 7176680- [Measurement of magnetic fields using a string fixed at both ends](#)
- 7177675- [Electroencephalography based systems and methods for selecting therapies and predicting outcomes](#)
- 7183381- [Composition of lactoferrin related peptides and uses thereof](#)
- 7186209- [Cardioelectromagnetic treatment](#)
- 7053610- [Squid detected NMR and MRI at ultralow fields](#)
- 7039547- [Method and apparatus for localizing biomagnetic signals](#)
- 7039266- [Nonmetallic input device for magnetic imaging and other magnetic field applications](#)
- 6873872- [Adaptive electric field modulation of neural systems](#)
- 6876196- [Determining a position of objects in a predetermined coordinate system](#)
- 6885192- [SQUID detected NMR and MRI at ultralow fields](#)
- 6907280- [Method and apparatus for objectively measuring pain, pain treatment and other related techniques](#)
- 6926921- [Imprint lithography for superconductor devices](#)
- 6978179- [Method and apparatus for magnetic brain wave stimulation](#)
- 6983184- [Interactive-modified interactive event related potential \(IMIERP\)](#)
- 6983264- [Signal separation method and apparatus for restoring original signal from observed data](#)
- 7023206- [Magnetolectric magnetic field sensor with longitudinally biased magnetostrictive layer](#)
- 7038450- [High sensitivity atomic magnetometer and methods for using same](#)
- 7187169- [NMR and MRI apparatus and method](#)
- 7196514- [Multi-conductive ferromagnetic core, variable permeability field sensor and method](#)
- 7324851- [Closed-loop feedback-driven neuromodulation](#)
- 7338171- [Method and apparatus for visual drive control](#)
- 7340125- [Optical switches and switching methods](#)
- 7346395- [Method of treating depression, mood disorders and anxiety disorders using neuromodulation](#)
- 7353064- [Systems and methods for enhancing or optimizing neural stimulation therapy for treating symptoms of movement disorders and/or other neurologic dysfunction](#)
- 7353065- [Responsive therapy for psychiatric disorders](#)
- 7369896- [Systems and methods for treating movement disorders](#)
- 7371365- [Methods for detecting parenchymal plaques in vivo](#)
- 7394246- [Superconductive quantum interference device \(SQUID\) system for measuring magnetic susceptibility of materials](#)
- 7403820- [Closed-loop feedback-driven neuromodulation](#)
- 7313442- [Method of treating mood disorders and/or anxiety disorders by brain stimulation](#)
- 7286871- [Method and apparatus for reducing contamination of an electrical signal](#)
- 7280861- [Diagnosis and classification of disease and disability using low frequency magnetic field designed pulses \(Cnps\)](#)
- 7197352- [High-resolution magnetoencephalography system, components and method](#)
- 7199708- [Communication apparatus and communication method](#)
- 7209787- [Apparatus and method for closed-loop intracranial stimulation for optimal control of neurological disease](#)
- 7218104- [Squid detected NMR and MRI at ultralow fields](#)
- 7224282- [Control apparatus and method for controlling an environment based on bio-information and environment information](#)
- 7228178- [Surface stimulation for tremor control](#)
- 7231254- [Closed-loop feedback-driven neuromodulation](#)
- 7242984- [Apparatus and method for closed-loop intracranial stimulation for optimal control of neurological disease](#)
- 7269516- [Systems and methods for monitoring behavior informatics](#)
- 7277758- [Methods and systems for predicting future symptomatology in a patient suffering from a neurological or psychiatric disorder](#)
- 7420033- [Composition of lactoferrin related peptides and uses thereof](#)

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