May 29-31, 2009
Rome, Italy

7th NFSI & ICBEM 2009

7th International Symposium on Noninvasive Functional Source Imaging of the Brain and Heart
&
7th International Conference on Bioelectromagnetism

"Sapienza" University of Rome, Italy
Faculty of Engineering

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GENERAL INFORMATIONS

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Prof. Fabio Babiloni
Prof. Serenella Salinari

Congress Venue

"Sapienza" University of Rome
Faculty of Engineering
Via Eudossiana, 18
Roma, Italy

Congress Secretariat

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SCIENTIFIC PROGRAM

Friday 29 May 2009

PLENARY SESSION: ROOM A - Chairperson: Fabio Babiloni

08:50 - 09:00	Welcome to the participants *Fabio Babiloni*
09:00 - 09:15	COST - a base for scientific networking in Europe *Kalliopi Kostelidou*
09:15 - 10:00	Functional Source Imaging of Brain and Heart Activity: Past, Present and Future *Bin He*
10:00 - 10:45	EEG-based BCI - state of the art and future prospects *Gert Pfurtscheller*
10:45 - 11:15	Coffee break + Poster Session

PLENARY SESSION: ROOM A - Chairperson: Bin He

11:15 - 12:00	A-priori Knowledge Based Cardiac Modeling Approaches for Imaging Patient Individual Cardiac *Bernhard Pfeifer*
12:00 - 12:45	Transmission of brain activity during cognitive task *Katarzyna Blinowska*
12:45 - 14:00	Lunch + Poster Session

PLENARY SESSION: ROOM A - Chairperson: Katarzyna Blinowska

14:00 - 14:30	Gender differences in brain functional organization during verbal and spatial cognitive challenges *Zoltan Koles*
14:30 - 15:00	Information Communication Networks in the Normal and Disease Human Brain *George Zouridakis*
15:00 - 15:30	Coronary Artery Stenosis and Plaque; Characterizations with Dual Energy CT *Metin Akay*
15:30 - 16:00	Coffee break + Poster Session

Friday 29 May 2009 **Parallel Sessions**

ROOM A: BRAIN COMPUTER INTERFACES - Chairpersons: L. Bianchi, B. Blankertz

16:00 - 16:15	On The Use of Electrooculogram For Efficient Human Computer Interfaces *A.B. Usakli*

16:15 - 16:30 On optimal channel configurations for SMR-based brain-computer interfaces *C. Sannelli*

16:30 - 16:45 Control of a Smart Home with a Brain-Computer Interface *G. Krausz*

16:45 - 17:00 Predicting BCI Performance to Study BCI Illiteracy *B. Blankertz*

17:00 - 17:15 Towards a Cure for BCI Illiteracy *C. Vidaurre*

17:15 - 17:30 Which brain areas and components are more suitable for visual P300 BCI? *L. Bianchi*

17:30 - 17:45 Automatic Rejection of Outliers in EEG Discriminant and Source Analysis *J.C. Lind*

17:45 - 18:00 Music Composition from the Brain Signal: Representing the Mental State by Music *D. Wu*

18:00 - 18:15 Time-frequency analysis reveals distinct synchronization patterns within the motor system *B.C.M. van Wijk*

ROOM B: HEART - Chairpersons: D. Wei, W. Klonowski

16:00 - 16:30 A virtual reality for catheter-based EPS based on whole-heart model *Daming Wei*

16:30 - 16:45 Spatial filter with recursively optimized beam response for MCG source imaging *I. Kumihashi*

16:45 - 17:00 Relation between Atrial Rate and Preferential AV nodal Conduction during Atrial Fibrillation *A.M. Climent*

17:00 - 17:15 Changes in Body-Surface Electrocardiograms from Geometric Remodeling due to Obesity *R. Martin Arthur*

17:15 - 17:30 Hybrid Modeling of Cardiopulmonary System *W. Klonowski*

17:30 - 17:45 Optimization of the Electrode Positions of Multichannel ECG for the Reconstruction of Ischemic Areas by Solving the Inverse Electrocardiographic Problem *Jiang*

17:45 - 18:00 A New Method for Estimating Cardiac Transmembrane Potentials from the Body Surface *A. Wang*

18:00 - 18:15 Surface Wavefront Propagation Maps: Non-invasive characterization of atrial flutter circuit *M.S. Guillem*

18:15 - 18:30 Statistical Localization of Arrhythmias Using Precordial ECG leads *E. Morales*

ROOM C: MODELING - Chairpersons: E. Magosso, M. Ursino

16:00 - 16:15 Comparing ICA-based and single-trial topographic ERP analyses in human EEG *M. De Lucia*

16:15 - 16:30	Signal Space Separation Beamformer *J. Vrba*
16:30 - 16:45	A semantic model to study neural organization of language during bilingualism *M. Ursino*
16:45 - 17:00	Neural Correlates of Multisensory Spatial Attention: A Computational Modelling Study *E. Magosso*
17:00 - 17:15	Rhythms generation in a population of neurons simulated by a neural mass model *M. Zavaglia*
17:15 - 17:30	Determination of Neural Fiber Connections Based on Data Structure Algorithm *D. Goksel Duru*
17:30 - 17:45	Effects of Extremely Low Frequency Magnetic Fields (EFL-MF) on Neuroblastoma *J.C. Hernandez-Pavon*
17:45 - 18:00	DTI parameter optimisation for acquisition at 1.5T: SNR analysis and clinical application *M. Laganà*
18:00 - 18:15	Cross-correlation of motor activity signals from dc- magnetoencephalography, near-infrared spectroscopy, and electromyography *T.H. Sander*

Saturday 30 May 2009

PLENARY SESSION: ROOM A - Chairperson: F. Babiloni

09:00 - 09:15	Welcome address *Fabrizio Vestroni*
09:15 - 10:00	Advanced source models for the analysis of EEG data: Theory and Applications. *Rolando Grave De Peralta*
10:00 - 10:45	Functional assessment of cardiovascular system by means of image and signal processing *Sergio Cerutti*
10:45 - 11:30	Coffee break + Poster Session

PLENARY SESSION: ROOM A - Chairperson: S. Cerutti

11:30 - 12:15	Estimating functional connectivity in MEG source imaging *Kensuke Sekihara*
12:15 - 12:45	Estimation of time-varying cortical connectivity from high resolution EEG recordings *Laura Astolfi*
12:45 - 13:15	Multimodal integration of Fmri and Magnetoencephalographic data *Cosimo Del Gratta*
13:15 - 14:15	Lunch + Poster Session

Saturday 30 May 2009 **Parallel Sessions**

ROOM A: MEG - Chairperson: G. Huiskamp

14:15 - 14:30 Robust Methods for Reconstructing Brain Activity and Functional Connectivity from MEG Data *J.P. Owen*

14:30 - 14:45 MEG study of cortico-cortical coherency in patients with motor-neuron degenerative diseases *L. Marzetti*

14:45 - 15:00 Regional differences in the Sensitivity of MEG for Interictal Spikes in Epilepsy *G. Huiskamp*

15:00 - 15:15 Unsupervised Classification for Nonlinear Dynamical Analysis of Brain MEG Activity *M. Bucolo*

ROOM B: MULTIMODAL - Chairperson: T.F. Oostendorp

14:15 - 14:30 Neural bases of focused attention and open monitoring during meditation *A. Manna*

14:30 - 14:45 Connecting Mean Field Models of Neural Activity to EEG and fMRI Data *T.F. Oostendorp*

14:45 - 15:00 Effects of rare deviant somatosensory stimuli and stimulus omissions on human cortical responses: an fMRI study *A. Ferretti*

15:00 - 15:15 Exploring cortical attentional system by using fMRI during a Continuous Perfomance Test *M.G. Tana*

15:15 - 15:30 Simultaneous EEG-fMRI in patients with Unverricht-Lundborg disease: event-related desynchronization/synchronization(ERD/ERS) and haemodynamic response analysis *E. Viviani*

ROOM C: EEG - Chairperson: F. Babiloni

14:15 - 14:30 3D Cortical Dipole Imaging of Brain Electrical Activity Considering Median Plane *J. Hori*

14:30 - 14:45 Independent Component Analysis for source localization of EEG sleep spindle components *E.M. Ventouras*

14:45 - 15:00 Tracking the Brain Activity with the High Resolution EEG: a Neuromarketing Experiment *G. Vecchiato*

15:00 - 15:15 Solving the EEG forward problem by realistic and spherical head modeling: a comparative cortex-based analysis *F. Vatta*

15:15 - 15:30 The Influence of Age and Skull Conductivity on Surface and Subcutaneous Bipolar EEG Leads *K. Wendel*

15:45 - 16:00 Social Program: Departure from the Congress Venue (included for all registered participants and accompanying persons)

17:00 - 19:00 Visit to the Galleria Borghese with English speaking guide

19:30 - 22:00 Social Dinner at Casina Valadier

22:30 Departure from Casina Valadier; private transportation by bus. Stops in Piazza Venezia and Stazione Termini

Sunday 31 May 2009

PLENARY SESSION: ROOM A - Chairperson: D. Mattia

09:15 - 10:00 Fast and slow brain activity and connectivity from long MEG data *Andreas Ioannides*

10:00 - 10:45 Electric Source Imaging in Epilepsy *Christoph Michel*

10:45 - 11:15 Coffee break + Poster Session

PLENARY SESSION: ROOM A - Chairperson: F. Babiloni

11:15 - 12:00 Brain Computer Interface as a tool for neurorehabilitation *Donatella Mattia*

12:00 - 12:45 Cognitive Signals for Brain Computer Interaction *José del R. Millán*

12:45 - 13:00 Concluding Remarks *Fabio Babiloni*

POSTER SESSION

01: Network Parameters for Studying Functional Connectivity in Brain MEG Data

M. Bucolo [a], F. Di Grazia [a], F. Sapuppo [a], D. Shannahoff-Khalsa [b]

[a] Dipartimento di Ingegneria Elettrica, Elettronica e dei Sistemi, Università degli Studi di Catania, Italy

[b] Institute for Nonlinear Science, University of California, San Diego, La Jolla, California, USA

02: A Study on Human Upper-Limb Muscles Activities during Daily Upper-Limb Motions

R. A. R. C. Gopura [a], Kazuo Kiguchi [a], Etsuo Horikawa [b]

[a] Dept. Advanced Systems Control Engineering, Saga University, Saga, Japan

[b] Faculty of Medicine, Saga University, Saga, Japan

03: Brain Electric Microstate and Perception of Simultaneously Audiovisual Presentation

Wichian Sittiprapaporn [a,b], Jun Soo Kwon [b,c,d]

[a] College of Music, Mahidol University, Salaya, Nakhonpathom, Thailand,

[b] Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea,

[c] Clinical Research Center, Seoul National University Hospital, Seoul, Korea,

[d] Brain Korea 21 Human Life Science, Seoul National University, Seoul, Korea

04: Cardiac Cycle through the Wave's Aorta Tension: Bioelectromagnetic Assessment

T. Cordova [a], M. A. Maldonado [a], J. Castro [a], M. E. Cano [b], S. Solorio [c], M. A. Hernandez [c], M. Sosa [a], J. J. Bernal [a], R. Huerta-Franco [d], M. Vargas [a]

[a] Dept. Ingeniería Física DCI-Leon, Universidad de Guanajuato, Leon, Gto., Mexico.

[b] Centro Universitario de la Ciénega, Universidad de Guadalajara campus-Ocotlan, Jal. Mexico

[c] Unidad Medica de Alta Especialidad-IMSS-T1 Leon, Gto., Mexico.

[d] Dept. de Ciencias Aplicadas al Trabajo DCI-Leon, Universidad de Guanajuato, Leon, Gto., Mexico.

05: Evaluation of a robot as embodied interface for Brain Computer Interface systems

E. Menegatti [a], L.Tonin [a], S. Silvoni [b], F. Piccione [b]

[a] Intelligent Autonomous System Laboratory (IAS-Lab), Department of Information Engineering, University of Padua, Italy

[b] I.R.C.C.S. S.Camillo,Venice,Italy

06: A bidomain model for neural tissue

Rosalind Sadleir

[a] Dept. Biomedical Engineering, University of Florida, Gainesville, FL, USA

07: Progressive Muscle Fatigue Induces Loss in Muscle Force and Persistent Activation of Frontal Cortex as Measured by Multi-Channel fNIRT

Gabriele Di Sante, Tania Limongi, Marco Ferrari, Valentina Quaresima

Dept. Health Sciences, University of L'Aquila, L'Aquila, Italy

08: Body EMF Absorption: A Design Issue for Implantable Medical Electronics

Qiang Fang

School of Electrical and Computer Engineering, RMIT University, Melbourne, Australia

09: Neurofeedback-based motor imagery training for brain-computer interface (BCI)
Han-Jeong Hwanga, kyung Hwan Kima, Chang-Hwan Ima
[a] Dept. Biomedical Engineering, University of Yonsei, Wonju, Korea

10: Epilectic Source Localization: Deep Electrode Measurements versus Scalp EEG
A.D. Duru [a], A. Ademoglu [a]
[a] Inst. of Biomedical Engineering , University of Bogazici, Istanbul, Turkey

11: Integration of Hemodynamic and Electric Brain Signals in resting state conditions as a proposed method for non-invasive mapping of epileptogenic zones
B. Canesi [a], A. Schenone [a], D. Domenichelli [a], F. Di Salle [b,c], M. Fato [a]
[a] Dept Communication Computer and System Science, University of Genoa, Genoa, Italy
[b] Dept Cognitive Neuroscience, University of Maastricht, Maastricht, The Netherlands
[c] Dept Neuroscience,University of Pisa, Pisa, Italy

12: Noninvasive Imaging of Three-dimensonal Ventricular Activation Sequence in a Rabbit Model
Chengzong Han[1], Zhongming Liu[1], Chenguang Liu[1], Steven Pogwizd [2], Bin He[1]
[1] Department of Biomedical Engineering, University of Minnesota
[2] Department of Medicine, University of Alabama at Birmingham

13: T wave polarity of simulated electrocardiograms: influence of transmural heterogeneity
Piero Colli Franzone [a], Luca F. Pavarino [b], Simone Scacchi [b], B. Taccardi [c]
[a] Dept. Mathematics, University of Pavia, Pavia, Italy
[b] Dept. Mathematics, University of Milan, Milan, Italy
[c] Cardiovascular Research and Training Institute, University of Utah, Salt Lake City, Utah, USA

14: On-line detection of P300 and Error Potentials in a BCI speller
Bernardo Dal Seno [a], Matteo Matteucci [a], Luca Mainardi [b]
[a] Dept. of Electronics and Information, Politecnico di Milano, IIT Unit, Milan, Italy
[b] Dept. of Bioengineering, Politecnico di Milano, IIT Unit, Milan, Italy

15: Dynamic solution to the EEG source localization problem using Kalman Filters and Particle Filters
Javier M. Antelisa, Javier Mingueza
[a] Dept. Informatics and System Engineering, University of Zaragoza, Zaragoza, Spain

16: Forensics of features in the spectra of biological signals
Sladjana Spasic[1], Aleksandar Perovic[4], Wlodzimierz Klonowski[2], Zoran Djordjevic[4], Wlodzis-aw Duch[3], Aleksandar Jovanovic[4]
[1] Institute for Multidisciplinary Research,Belgrade, Serbia,
[2] Lab. Biosignal Analysis Fundamentals, Institute of Biocybernetics & Biomedical Engineering, Polish Academy of Sciences, Warsaw, Poland, wlodzimierz.klonowski@ibib.waw.pl
[3] Department of Informatics, Nicolaus Copernicus University, Torun, Poland, duch@ieee.pl
[4] Group for Intelligent Systems, School of Mathematics, University of Balgrade,

17: Implementation of the Newton-Raphson and Admittance Methods for EIT
D. Romano, S. Pisa, E. Piuzzi
Dept. of Electronic Engineering, Sapienza University of Rome, Italy

18: Learning-related changes of ß-activity in motor areas
A Daffertshofer [a], S Houweling [a], BW van Dijk [b], PJ Beek [a]
[a] Research Institute MOVE, VU University Amsterdam, The Netherlands
[b] Dept. of Clinical Neurophysiology, VU University Medical Center, Amsterdam, The Netherlands

19: Investigating Multivariate Systems using Directed Partial Correlation
Wolfgang Mader [a,b,c], David Feess [a,b,c], Dorothee Saur [c], Rüdiger Lange [c], Volkmar Glauche [c], Cornelius Weiller [c], Jens Timmer [a,b,d], and Björn Schelter [a,b]
[a] Freiburg Center for Data Analysis and Modeling
[b] University of Freiburg, Freiburg, Germany, Institute of Physics
[c] Department for Neurology, University Medical Center of Freiburg, Freiburg, Germany
[d] Freiburg Institute for Advanced Studies, Freiburg, Germany

20: An efficient DWT-ICA approach for artifact removal in EEG
Pirini M.[a], Chiari L. [a], and Ursino M. [a]
[a] Dept. Electronics, Computer Science, and Systems, Università di Bologna, Italy

21: EEG correlates of perception and action during postural audio-biofeedback
Pirini M.[a], Mancini M. [a], and Chiari L. [a]
[a] Department of Electronics, Computer Science, and Systems - Università di Bologna - Italy

22: A mass model of interconnected thalamic populations including both tonic and burst firing mechanisms
Pirini M.[a], Ursino M.[a]
[a] Dept. Electronics, Computer Science, and Systems, University of Rome "Sapienza", Bologna, Italy

23: Functional cortical source imaging from simultaneously recorded EEG and MEG
Jong-Ho Choi [a], Hyun-Kyo Jung [a], Chang-Hwan Im [b]
[a] School of Electrical Engineering and Computer Science, Seoul National University, Korea
[a] Department of Biomedical Engineering, Yonsei University, Korea

24: Brain-Computer Interfacing in Tetraplegic Patients Suffering from High Spinal Cord Injury
J. Conradi [a], B. Blankertz [b], [c], M. Tangermann [b], V. Kunzmann [a], G. Curio [a]
[a] Dept. of Neurology, Campus Benjamin Franklin, Charité University Medicine, Berlin, Germany
[b] Machine Learning Laboratory, Berlin Institute of Technology, Berlin, Germany
[c] Intelligent Data Analysis Group, Fraunhofer FIRST, Berlin, Germany

25: A wavelet methodology for EEG time-frequency analysis in a time discrimination task
Costanza D'Avanzo [a], Vincenza Tarantino [b], Patrizia Bisiacchi [b], Giovanni Sparacino [a]
[a] Department of Information Engineering, University of Padua, Padua, Italy
[b] Department of General Psychology, University of Padua, Padua, Italy

26: Altered EEG Synchronization and Its Correlation with Symptom Severity in Alzheimer's disease: Application of Global Synchronization Index (GSI)
Do-Won Kim [a,b], Seung-Hwan Lee [b,c], Huije Che [a], and Chang-Hwan Im [a]
[a] Department of Biomedical Engineering, Yonsei University, Wonju-si, South Korea
[b] Clinical Emotion and Cognition Research Laboratory, Goyang, South Korea
[c] Department of Neuropsychiatry, Inje Univ. Ilsan Paik Hospital, Goyang, South Korea

27: Reconstruction of time correlations among multiple oscillatory neural activities by Beamformer analysis

Yoshikazu Iijima [a], Yumie Ono [b], Kanako Dowaki [a], Atushi Ishiyama [a], Naoko Kasai [a]

[a] Dept. Electrical Engineering and Bioscience, Waseda University, Tokyo, Japan

[b] Dept. Physiology and Neuroscience, Kanagawa Dental College, Kanagawa, Japan

28: An ICA-Based Subspace Scanning Algorithm for Enhanced Spatial Resolution in EEG/MEG Spatiotemporal Dipole Source localization

Young-Jin Jung [a], Kiwoon Kwon [a], Chang-Hwan Im [a]

[a] Department of Biomedical Engineering, Yonsei University, Wonju, Korea

29: Perceptual switching evokes frontal delta wave activity

Mayuko Okada [a], Yumie Ono [b], Yoshikazu Iijima [a], Atsushi Ishiyama [a], Naoko Kasai [a]

[a] Dept. of Electrical Engineering and Bioscience,Waseda University, Tokyo, Japan

[b] Dept. of Physiology and Neuroscience, Kanagawa Dental College,Kanagawa, Japan

30: Feasibility study of the time-variant functional connectivity pattern during an epileptic seizure

Pieter van Mierlo [a], Hans Hallez [a], Sara Assecondi [a], Steven Staelens [a], Evelien Carrette [b], Ignace Lemahieu [a], Paul Boon [b]

[a] Department of Electronics and Information Systems, MEDISIP, Ghent University-IBBT-IbiTech, Ghent, Belgium

[b] Department of Neurology, Ghent University, Ghent, Belgium

31: Multivariate matching pursuit in the analysis of single-trial latency of the auditory M100 acquired with MEG

Cezary Sieluycki [a], Rafa Ku [b], Artur Matysiak [a], Piotr J. Durka [b], Reinhard König [a]

[a] Leibniz Institute for Neurobiology, Magdeburg, Germany

[b] Department of Biomedical Physics, Institute of Experimental Physics, University of Warsaw, Warsaw, Poland

32: Dependency of the duration of the paroxistic activity in the analysis of the localization in epilepsia disease, using a simultaneous combination of EEG-fMRI

A.B.Solana [a], C. Maestu [a], R. Bajo [a], M.Rios [b], J.A. Lineras [c], J.M. Serratosa [d], A. Marinas [d], B.G. Giráldez [d], F. Del Pozo [a]

[a] Biomedical Technology Center(CTB),

[b] Dpt. Psicology UNED,

[c] Serv Radiology Foundation CIEN

[d] Epilepsy Unit.Foundation Jiménez Díaz Hospital

33: High-Tc SQUID Array for Detection of Moving Magnetic Particles in Magnetic Drug Delivery System

Yoshimi Hatsukade, Yasukuni Torii, Akimasa Karitani, Saburo Tanaka

Department of EcologicalEngineering, Toyohashi University of Technology,1-1 Hibarigaoka, Tenpaku-cho, Toyohashi, Aichi 441-8580, Japan

34: Gum chewing maintains working memory acquisition

Yumie Ono[a], Kanako Dowaki[b], Atsushi Ishiyama[b], Minoru Onozuka[a]

[a] Dept. Physiology and Neuroscence, Kanagawa Dental College, Kanagawa, Japan

[b] Dept. Electrical Engineering and Bioscience,Waseda University, Tokyo, Japan

35: Lower limb primary sensory and motor cortical activity during voluntary and passive ankle mobilisation

Zappasodi F [a], Pittaccio S [b], Viscuso S. [b], Mastrolilli F. [c], Ercolani M. [c], Porcaro C.[c,d], Passarelli F.[c], Molteni F.[e], Rossini P.M. [f, g], Tecchio F [g, h]

[a] Dept.of Clinical Sciences and Bioimaging, 'G.D'Annunzio' University, Chieti-Pescara, Italy
[b] CNR-IENI, Lecco, Italy
[c] AFaR, Osp. Fatebenefratelli, Isola Tiberina, Rome, Italy
[d] School of Psychology and Birmingham University Imaging Centre, University of Birmingham, UK
[e] Osp. Valduce, Clinica Villa Beretta, Costamasnaga, Italy
[f] Dept. of Neurology, 'Campus Bio-Medico' University, Rome, Italy
[g] CNR-ISTC, Rome, Italy
[h] IRCCS San Raffaele, Tosinvest Sanità, Cassino, Italy Italy

36: Electric Characterization of Skin Near Biological Active Points and Meridians

F.M. Vargas-Luna [a], E.A. Perez-Alday [a], M.R. Huerta-Franco [b] and I. Delgadillo-Holtfort [a]

[a] Departamento de Ingeniería Fisica, DCI-Campus Leon, Universidad de Guanajuato, León, México
[b] Departamento de Ciencias Aplicadas al Trabajo, DCS-Campus Leon, Universidad de Guanajuato, León, México.

37: The cognitive and rehabilitative process in the passage, through motor experience, from objective to sobjective on a single-case study

Alba Bernardini
Siena, Italy

38: Learning a New Script: an MEG Study in Dyslexics and Normal Readers

Chirstioph Brau [a,b], Krunoslav Stingl [c], Christopher Hoffmann [d], Jonathan Wolfe, Dirk Wildgruber [f], Susanne Trauzettel-Klosinski [d]

[a] CIMeC, Center for Mind/Brain Sciences, University of Trento, Trento,Italy
[b] DiSCOF, Department of Cognitive and Education Sciences, University of Trento, Trento, Italy
[c] MEG-Center, University of Tübingen, Tübingen, Germany
[d] University Eye Hospital, University of Tübingen, Tübingen, Germany
[e] Department of General Psychiatry, Univeristy of Tübingen, Tübingen, Germany
[f] Department of Child and Adolescent Psychiatry and Psychotherapy, University of Tübingen, Tübingen, Germany

39: Time dilation and EM wavelength variations as the consequence of temperature changes in body and brain for affect life signals and time perception

Mojtba Omid [a], Golamreza Asad Nasab [b]

[a] Member of scientific association of Islamic Azad University - Tabriz branch - Tabriz, Iran
[b] Medical physics department of Tabriz Azad University, Tabriz, Iran

40: MEG study of cortical modulation of brain rhythms during buddhist meditation

Della Penna S.[a,b], Marzetti L.[a,b], Mantini D.[a,b], Brunetti M.[a,b], Franciotti R.[a,b], Pizzella V.[a,b], Raffone A.[c], and Romani G.L. [a,b]

[a] Dept. of Clinical Sciences and Bio-imaging, University "G. D'Annunzio", Chieti, Italy
[b] Institute for Advanced Biomedical Technologies, University Foundation "G. D'Annunzio", Chieti, Italy
[c] Department of Psychology, "La Sapienza" University, Rome, Italy

41: An Analysis of Logical Process of 3D Virtual Imaging Creation - A Parametric fMRI Study

Li-qun Wang
Research Center for Advanced Technologies, Tokyo Denki University, Chiba, Japan

42: On the "dependence" of "independent" group EEG sources; an EEG study on two large databases.

Marco Congedo [a], Roy E. John [b], Dirk De Ridder [c], Leslie Prichep [b], Robert Isenhart [b]
[a] Gipsa-lab, National Center for Scientific Reserach (cnrs), University Joseph Fourier, University Stendhal, Grenoble Institute of Tecnology, Grenoble, France.
[b] Brain Research Laboratory, New York University Medical School, Department of Psychiatry
[c] Brain Research center Antwerp for Innovative and Interdisciplinary Neuromodulation (BRAI²N) & Dept of Neurosurgery, University and Hospital of Antwerp, Belgium

43: Modulation of Perception of Force by Unexpected Visual Changes

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44: Study on Double Magnetic Dipole Source Localization Approach

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45: Co-occurrence of the sawtooth waves and rapid eye movements during REM sleep

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46: Magnetoencephalographic Study of Auditory Feature Analysis Associated with Visually Based Prediction

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47: Initial results of a high-speed spatial auditory BCI

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48: Classification of Artifactual ICA Components

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49: Detecting Mental Calculation Related Frontal Cortex Oxygenation Changes for Brain Computer Interface Using Multi-Channel Functional Near Infrared Topography

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50: A XY magnetic scanning device for magnetic tracers: Preliminary results

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51: Personal device for the recording and modulation of the electrical activity generated by hearth throught a PC sound input

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52: Spectral and coherence analysis of EEG during intermittent photic stimulation in patients with photosensitive epilepsy

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53: Influence of Electromagnetic Radiation on Enzyme kinetics

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54: Multivariate Autoregressive Model with Instantaneous Effects to Improve Brain Connectivity Estimation

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55: Detection of Change in Alpha Wave following Eye Closure Based on KM2O-Langevin Equation

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56: Functional source imaging of human spinal cord electrical activity from its evoked magnetic field

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57: Improving Measurement Performance of EEG Signal Acquisition: An Electrical Aspect for Front-end

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58: Stimulation based assessment of risk of epileptic transitions in neuronal systems

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