

国际临床电生理联盟脑电时空分析 Guidelines 研讨会暨 第五届国际神经信息研讨会 (第 1 轮通知)

国际临床电生理联盟(IFCN) 脑电时空分析 Guidelines 编写专家组决定于 2017 年 9 月 25-26 日在四川成都电子科技大学举办 Guidelines 所涉相关技术研讨会。

一、会议内容

本次会议包括两部分：

第 1 部分由 Guidelines 编写专家组邀请的专家于 9 月 25 日就一些关键问题 (Controversies) 进行研讨 (日程见附件 1)。Guidelines 的撰写专家及内容目录见附件 2。

第 2 部分由中国相关专家于 9 月 26 日围绕相关问题进行研讨 (Workshop of Chinese Opinions on IFCN Guidelines) (日程待定)。

二、会议收费标准：

8 月 10 日前注册，非学生 1600 元，学生 1200 元；

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以上费用推荐以汇款方式支付，会议报到现场可刷卡 (不收现金)。转账信息如下：

户名：电子科技大学

账号：4402211009008903354

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汇款附言：IFCN 会议-XX (姓名)-XX (单位)

特别注意：电子科技大学本校参会人员请联系组委会开具内部结算单，切勿直接转账。

三、会议报名及联系方式

请有意参加会议的同行，尽快填写参会回执 (附件 3)，于 8 月 10 日前发送到 cognitivesci@163.com，以便会务安排。

会议联系邮箱：cognitivesci@163.com；联系电话：028-61830867

第五届国际神经信息研讨会组委会
电子科技大学生命科学与技术学院
2017 年 7 月 18 日

附件 1

THE WHORKSHOP **IFCN Guidelines on the Frequency and Topographical Analysis of Resting State EEG (rsEEG) in Clinical Neurophysiology: The Controversies** **25th of SEPTEMBER 2017, Chengdu, China**



TITLE:

IFCN Guidelines on the Frequency and Topographical Analysis of Resting State EEG (rsEEG) in Clinical Neurophysiology: The Controversies.

THE FIRST SESSION (120 minutes + Coffee break of 15 minute):

The resting state EEG rhythms: Neurophysiology and Recording

Chairmen: Mark Hallett and Dezhong Yao

THE IFCN GUIDELINES (Mark Hallett, 10 minutes)

THE NEUROPHYSIOLOGY OF RESTING STATE EEG RHYTHMS. The brain generation mechanisms (Claudio Babiloni, 20 minutes);

WHICH REFERENCE ELECTRODE FOR INVESTIGATING EEG RHYTHMS? Cephalic, non-cephalic, common average references (Robert Ostenveld; 20 minutes) vs. REST modeling (Dezhong Yao, 20 minutes); Open Discussion: 5 minutes.

WHAT ELECTRODE MONTAGE? Looking for the electrode montage for rsEEG in CLINICAL APPLICATIONS (Matti Hamalainen; 20 minutes) vs. NEUROPHYSIOLOGY RESEARCH (Pedro Valdes Sosa, 20 minutes). Open Discussion: 5 minutes.

Coffee break: 15 minutes

THE SECOND SESSION (150 minutes + Coffee break of 15 minute):

The resting state EEG rhythms: Cortical synchronization and connectivity

Chairmen: Claudio Babiloni and Pedro Valdes-Sosa

SENSORS OR SOURCES? Opportunities and limitation of topographical analysis of rsEEG rhythms at SCALP SENSORS (Katarzyna Blinowska; 20 minutes) vs. SOURCES (Pedro Valdes Sosa; 20 minutes) vs.; Open Discussion: 5 minutes.

LINEAR OR NONLINEAR MEASUREMENTS? Computation of LINEAR (Robert Ostenveld; 20 minutes) vs. NONLINEAR (Jaeseung Jeong; 20 minutes) measurements of rsEEG rhythms; Open Discussion: 5 minutes.

Coffee break: 15 minutes

DISEASE MARKERS OR WINDOWS ON HUMAN NEUROPHYSIOLOG? Limits and opportunities in the use of the frequency and topographical rsEEG analysis in CLINICAL APPLICATIONS (Mark Hallett; 20 minutes) and NEUROPHYSIOLOGY RESEARCH. (Claudio Babiloni; 20 minutes). Open Discussion: 5 minutes.

FINAL REMARKS (Pedro Valdes-Sosa; 10 minutes).

附件 2 : Guidelines 撰写专家和目录

Version of 21st of April 2017 for Clinical Neurophysiology

International Federation of Clinical Neurophysiology (IFCN) guidelines for topographic and frequency analysis of electroencephalographic rhythms

1) Dr. Claudio Babiloni (Coordinator and expert of linear frequency analysis and topographical source estimation of EEG for clinical applications in dementing disorders)

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2) Dr. Wolfgang Klimesch (Expert of the frequency analysis of phase- and nonphase-locked EEG rhythms for cognitive neuroscience)

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3) Dr. Robert Knight (Expert of frequency analysis of intracranial EEG rhythms for cognitive neuroscience and clinical applications)

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4) Dr. Pim (Wilhelmus Helena Ignatius Maria) Drinkenburg, (Expert on pharmacoEEG analyses & translational neurophysiology)

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5) Dr. Andrzej Cichocki (Expert of frequency linear and nonlinear analysis of EEG functional connectivity for clinical applications)

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6) Dr. Erol Başar (Expert of frequency analysis of phase-locked event-related EEG oscillations for cognitive neuroscience and clinical applications)

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ASIA

7) Dr. Jaeseung Jeong (Korea Advanced Institute of Science and Technology, KAIST)

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Professor of Bio and Brain Engineering, KAIST

Decision neuroscience, Nonlinear brain dynamics, Connectome, Computational Neuroscience, Brain-Robot Interface.

He is one of the most important experts of non-linear and complexity EEG markers for clinical applications. ASIA

8) Dr. Roberto Pascual Marqui (Expert of source analysis of EEG functional connectivity for cognitive neuroscience and clinical applications)

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The KEY Institute for Brain-Mind Research, University of Zurich, Switzerland

Visiting Professor at Neuropsychiatry, Kansai Medical University, Osaka, Japan

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9) Dr. Paul Nunez (Expert of frequency and topographical source analysis of EEG rhythms for cognitive neuroscience and clinical applications)

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AMERICA

10) Dr. Pedro Valdes Sosa (Expert of topographical source analysis of EEG for clinical applications)

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11) Dr. Robert Barry (Expert of frequency and topographical analysis of EEG for clinical applications in developmental age)

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12) Dr. Fernando Lopes da Silva (Expert of neurophysiological mechanisms generating EEG rhythms in healthy and diseased humans)

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AMERICA

1. Introduction

2. Recording of rsEEG for topographic and frequency analysis

Preliminary assessment of the subject's condition

Environmental conditions and instructions to subjects

Montage of the EEG electrodes for the topographical analysis

Montage of other sensors for control data collection

Setting of the rsEEG recording parameters

3. Storage of EEG and control data

4. Visualization of the EEG and control data

Preliminary data analysis

Identification of neuropathological rsEEG waveforms

5. Frequency analysis of rsEEG data

“Synchronization”

Computation of the rsEEG amplitude/power density spectrum

Absolute and relative rsEEG amplitude/power density

Computation of nonlinear features estimating the rsEEG complexity

Connectivity

Linear measures of connectivity

Nonlinear measures of connectivity

The steps of the connectivity analysis

6. Topographic analysis of the EEG data

Topographic mapping

Cortical source mapping

Estimation of scalp current density and dura surface potential

Mapping cortical connectivity

The issue of the cortical tangential sources

7. Management, statistical analysis, and interpretation of the rsEEG variables

Management of the rsEEG variables

Statistical analysis of the rsEEG variables

Interpretation of the frequency and topographical rsEEG variables

8. References

附件 3：报名回执

姓名	性别	工作单位	职务	手机号码	QQ	邮箱

注：报名回执请于 8 月 10 日前发送到 cognitivesci@163.com