HANDBOOK OF NEURAL ACTIVITY MEASUREMENT

Neuroscientists employ many different techniques to observe the activity of the brain, from single-channel recording to functional imaging (fMRI). Many practical books explain how to use these techniques, but in order to extract meaningful information from the results it is necessary to understand the physical and mathematical principles underlying each measurement. This book covers an exhaustive range of techniques, with each chapter focusing on one in particular. Each author, a leading expert, explains exactly which quantity is being measured, the underlying principles at work, and most importantly the precise relationship between the signals measured and neural activity.

The book is an important reference for neuroscientists who use these techniques in their own experimental protocols and need to interpret their results precisely, for computational neuroscientists who use such experimental results in their models, and for scientists who want to develop new measurement techniques or enhance existing ones.

ROMAIN BRETTE is Associate Professor in the Cognitive Science Department at Ecole Normale Supérieure, Paris.

ALAIN DESTEXHE is CNRS Research Director in the Unit for Neuroscience, Information and Complexity, Gif-sur-Yvette.
HANDBOOK OF NEURAL ACTIVITY MEASUREMENT

Edited by

ROMAIN BRETTE
Ecole Normale Supérieure, Paris

ALAIN DESTEXHE
CNRS, Unit for Neuroscience, Information and Complexity, Gif-sur-Yvette
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Contributors

Seppo P. Ahlfors
Athinoula A. Martinos Centre for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, and Harvard MIT Division of Health Sciences and Technology, Charlestown, MA, USA

Andreas Bartels
Department of Physiology of Cognitive Processes, Max Planck Institute for Biological Cybernetics, Tübingen, Germany

Claude Bédard
Unit for Neuroscience, Information and Complexity (UNIC), CNRS, Gif-sur-Yvette, France

Romain Brette
Department of Cognitive Science, Ecole Normale Supérieure, Paris, France

Frédéric Chavane
Institut de Neurosciences Cognitives de la Méditerranée, CNRS, Aix-Marseille Université, Marseille, France

Sandrine Chemla
Canadian Centre for Behavioural Neuroscience, University of Lethbridge, Lethbridge, Alberta, Canada

Cynthia H. Chen-Bee
Department of Neurobiology and Behavior, Department of Biomedical Engineering, and the Center for the Neurobiology of Learning and Memory, University of California Irvine, Irvine, CA, USA

Maureen Clerc
Athena Project Team, INRIA Sophia Antipolis Méditerranée, France
List of contributors

**Anders M. Dale**
Departments of Radiology and Neurosciences, University of California San Diego, La Jolla, CA, USA

**Jan C. De Munck**
Department of Physics and Medical Technology, VU University Medical Centre, Amsterdam, The Netherlands

**Alain Destexhe**
Unit for Neuroscience, Information and Complexity (UNIC), CNRS, Gif-sur-Yvette, France

**Gaute T. Einevoll**
Department of Mathematical Sciences and Technology, and Center for Integrative Genetics (CIGENE), Norwegian University of Life Sciences, Ås, Norway

**Ron D. Frostig**
Department of Neurobiology and Behavior, Department of Biomedical Engineering, and the Center for the Neurobiology of Learning and Memory, University of California Irvine, Irvine, CA, USA

**Jozien Goense**
Department of Physiology of Cognitive Processes, Max Planck Institute for Biological Cybernetics, Tübingen, Germany

**Matti S. Hämäläinen**
Athinoula A. Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, and Harvard MIT Division of Health Sciences and Technology, Charlestown, MA, USA

**Fritjof Helmchen**
Brain Research Institute, University of Zürich, Zürich, Switzerland

**Henrik Lindén**
Department of Mathematical Sciences and Technology, Norwegian University of Life Sciences, Ås, Norway

**Nikos Logothetis**
Department of Physiology of Cognitive Processes, Max Planck Institute for Biological Cybernetics, Tübingen, Germany

**Klas H. Pettersen**
Department of Mathematical Sciences and Technology, Norwegian University of Life Sciences, Ås, Norway
List of contributors  xi

Thomas Stieglitz
Laboratory for Biomedical Microtechnology, Department of Microsystems Engineering IMTEK, Faculty of Engineering, and Bernstein Center Freiburg, Albert-Ludwig-University of Freiburg, Freiburg, Germany

Carsten H. Wolters
Institute for Biomagnetism and Biosignal Analysis, University of Münster, Münster, Germany