Contents

-		
Dr	eface	IX
F 11	erace	10

1	Exper	imental	Design	1
	-Apei	minericai	D coigii	

- 1 Interpreting Event-Related Brain Potentials 3
 Leun J. Otten and Michael D. Rugg
- 2 Ten Simple Rules for Designing ERP Experiments 17 Steven J. Luck
- 3 Basic Principles of ERP Quantification 33Todd C. Handy
- 4 Application of Repeated Measures ANOVA to High-Density ERP Datasets: A Review and Tutorial 57 Joseph Dien and Alecia M. Santuzzi
- II Data Analysis 83
- 5 Digital Filters in ERP Research 85
- J. Christopher Edgar, Jennifer L. Stewart, and Gregory A. Miller
- 6 Methods for the Estimation and Removal of Artifacts and Overlap in ERP Waveforms 115

Durk Talsma and Marty G. Woldorff

- 7 Source Localization of ERP Generators 149 Scott D. Slotnick
- 8 High-Resolution EEG: Theory and Practice 167
 Ramesh Srinivasan
- 9 Principal Components Analysis of ERP Data 189 Joseph Dien and Gwen A. Frishkoff

10 Averaging, Detection, and Classification of Single-Trial ERPs 209Kevin M. Spencer

11 EEG Oscillations and Wavelet Analysis 229
Christoph S. Herrmann, Maren Grigutsch, and Niko A. Busch

III Special Applications 261

12 ERPs in Developmental Populations 263 Tracy DeBoer, Lisa S. Scott, and Charles A. Nelson

13 ERPs in Neuropsychological Populations 299 Diane Swick

14 ERPs and Intracranial Recordings 323Maryam Soltani, Erik Edwards, Robert T. Knight, and Mitchel S. Berger

15 Combining Electrophysiology with Structural and Functional Neuroimaging: ERPs, PET, MRI, and fMRI 345

Joseph B. Hopfinger, Wayne Khoe, and Allen Song

Contributors 381 Index 385