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Nota di contenuto	Contents; Acknowledgments; Dedication; Chapter 1: Overview; Part I: Design and Evaluation of Novel Processing Strategies; Chapter 2: Comparison of Analog and Pulsatile Coding Strategies for Multichannel Cochlear Prostheses; Chapter 3: New Levels of Speech Reception with Cochlear Implants; Chapter 4: Evaluation of Alternative Implementations of the Continuous Interleaved Sampling (CIS), Interleaved Pulses (IP), and Peak Picker (PP) Processing Strategies; Chapter 5: Comparison of Compressed Analog (CA) and Continuous Interleaved Sampling (CIS) Processors in Tests with Seven Ineraid Subjects Chapter 6: Evaluation of Other Promising Strategies Chapter 7: Completion of "Poor Performance" Series; Chapter 8: Auditory Brainstem Implant (ABI) Studies; Chapter 10: Identification of Virtual Channels on the Basis of Pitch; Chapter 11: Further Evaluation of VCIS Processors; Chapter 12: Design for An Inexpensive but Nonetheless Highly Effective Cochlear Implant System; Chapter 13: 22-Electrode Percutaneous Study: Results for the First Five Subjects; Part II: Electrical Stimulation on Both Sides with Cochlear Implants; Chapter 14: Speech Reception with Bilateral Cochlear Implants Chapter 15: Sensitivities to Interaural Timing Differences Chapter 16: Pitch Ranking of Electrodes for 22 Subjects with Bilateral Cochlear Implants; Part III: Combined Electric and Acoustic Stimulation (EAS) of

the Auditory System; Chapter 17: Psychophysical Studies Relating to Combined EAS; Chapter 18: Speech Reception with Combined EAS; Part IV: Representations of Temporal Information with Cochlear Implants; Chapter 19: Temporal Representations with Cochlear Implants; Chapter 20: Strategies for the Repair of Deficits in Temporal Representations with Cochlear Implants

Chapter 21: High Rate Studies, Subject SR2Appendix A: Partners in Research; Appendix B: Topics and Authors for the RTI Progress Reports; Appendix C: Publications Resulting from the RTI Projects; Appendix D: Contents of the RTI Progress Reports Sorted by Topic; References; Index

Sommario/riassunto

This provides a comprehensive account of a decades-long research effort to improve cochlear implants (CIs). Four main sections describe the major lines of investigation: design and evaluation of novel processing strategies; electrical stimulation on both sides with CIs; combined electric and acoustic stimulation of the auditory system; and representations of temporal information with CIs. Large advances were made in each of these areas, and readers will appreciate the significance of the research and how the different areas related to each other.
