

# Table of contents

- **Preface** (p. xiii)
- **1 Of neurons and engineers** (p. 1)
- **I Representation**
- **2 Representation in populations of neurons** (p. 29)
- **3 Extending population representation** (p. 61)
- **4 Temporal representation in spiking neurons** (p. 81)
- **5 Population-temporal representation** (p. 129)
- **II Transformation**
- **6 Feed-forward transformations** (p. 143)
- **9 Statistical inference and learning Appendices** (p. 275)
- **Appendix A Chapter 2 derivations** (p. 301)
- **Appendix B Chapter 4 derivations** (p. 303)
- **Appendix E Chapter 7 derivations** (p. 319)
- **Appendix D Chapter 6 derivations** (p. 317)
- **7 Analyzing representation and transformation** (p. 185)
- **References** (p. 335)
- **8 Dynamic transformations** (p. 219)
- **Appendix F Chapter 8 derivations** (p. 327)
- **Index** (p. 351)
- **Appendix C Chapter 5 derivations** (p. 313)