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Altri autori (Persone)	BowerJames M
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction: Origins and History of the Annual CNS meetings -- A Pictorial History of the Early Days of Computational Neuroscience: The CNS Meeting Posters -- History of Neural Simulation Software -- Learning from the past: Approaches for Reproducibility in Computational Neuroscience -- The Emergence of Community Models in Computational Neuroscience: The 40-year History of the Cerebellar Purkinje Cell -- Calcium: the Answer to Life, the Universe, and Everything -- The more we look, the more biological variation we see: How has and should this influence modeling of small networks? -- 20 years of “noise”: Contributions of computational neuroscience to the exploration of the effect of background activity on central neurons -- Still looking for the memories: molecules and synaptic plasticity -- 20 years of the dynamics of memory: The long and winding road linking cellular mechanisms to behavior -- Spatiotemporal coding in the olfactory system -- 20 years of learning about vision: Questions answered, questions unanswered, and questions not yet asked -- Reinforcement learning models then and now: from single cells to modern neuroimaging -- Index.
Sommario/riassunto	Twenty years ago, the field of Computational Neuroscience was relatively new and many computer models were starting to be constructed of different structures and brain regions. This book seeks

to answer the questions, what have we learned over the last twenty years using computational techniques? and what are the most significant challenges that remain? The authors were selected to provide wide coverage of the applications of computational techniques to a broad range of questions and model systems in neuroscience. In addition, several chapters consider the historical development of the field of Computational Neuroscience itself, including its associated modeling technology. These contributions recount the historical record, but also consider what developments are necessary to continue to advance computational understanding of brain function. The book also includes an historical account of the establishment of the annual international meeting in Computational Neuroscience (the “CNS” meeting) more than twenty years ago, and includes annotated reproductions of the first twelve years of posters from that meeting. These posters in and of themselves have become famous in the field, hanging in many laboratories around the world and also in the halls of the NIH in Bethesda. Created at the time as allegories for the state of Computational Neuroscience, they now tell their own story of the origins and development of the field.