This is the first rigorous, self-contained treatment of the theory of deep learning. Aimed at scientists, instructors, and students interested in artificial intelligence and deep learning, it demonstrates many applications in physics, chemistry, and biomedicine. It includes a full set of exercises and encourages out-of-the-box thinking.

"This inspirational book is a delight to read, offering a unique perspective and an easy-to-follow guide for navigating the ins and outs of the deep learning landscape; it is dotted with real-world examples that bring to life the benefits and value the technology can bring."

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"A visionary book by one of the pioneers in the field guiding the reader through both the theory of deep learning and its numerous and elegant applications to the natural sciences. Yet the book aims higher than a simple engineering approach: it shows how deep learning may actually help us understand fundamental phenomena in physics, chemistry, and biology. It is as if the machine had become the teacher, and the human observer the student – a true paradigm shift for the future of Artificial Intelligence."

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"This wonderful and timely book provides the most comprehensive treatment to date of deep learning theory, algorithms, and applications. As one of the leading researchers in neural networks and deep learning for the past four decades, Baldi provides an insightful perspective on the development of the field from its early origins in the first half of the 20th century to the transformative technology it has become today ... This is a must-have book for everyone interested in deep learning, from students, to instructors, to researchers."

JIANLIN (JACK) CHENG, ***William and Nancy Thompson Professor, Department of Electrical Engineering and Computer Science, University of Missouri, Columbia***

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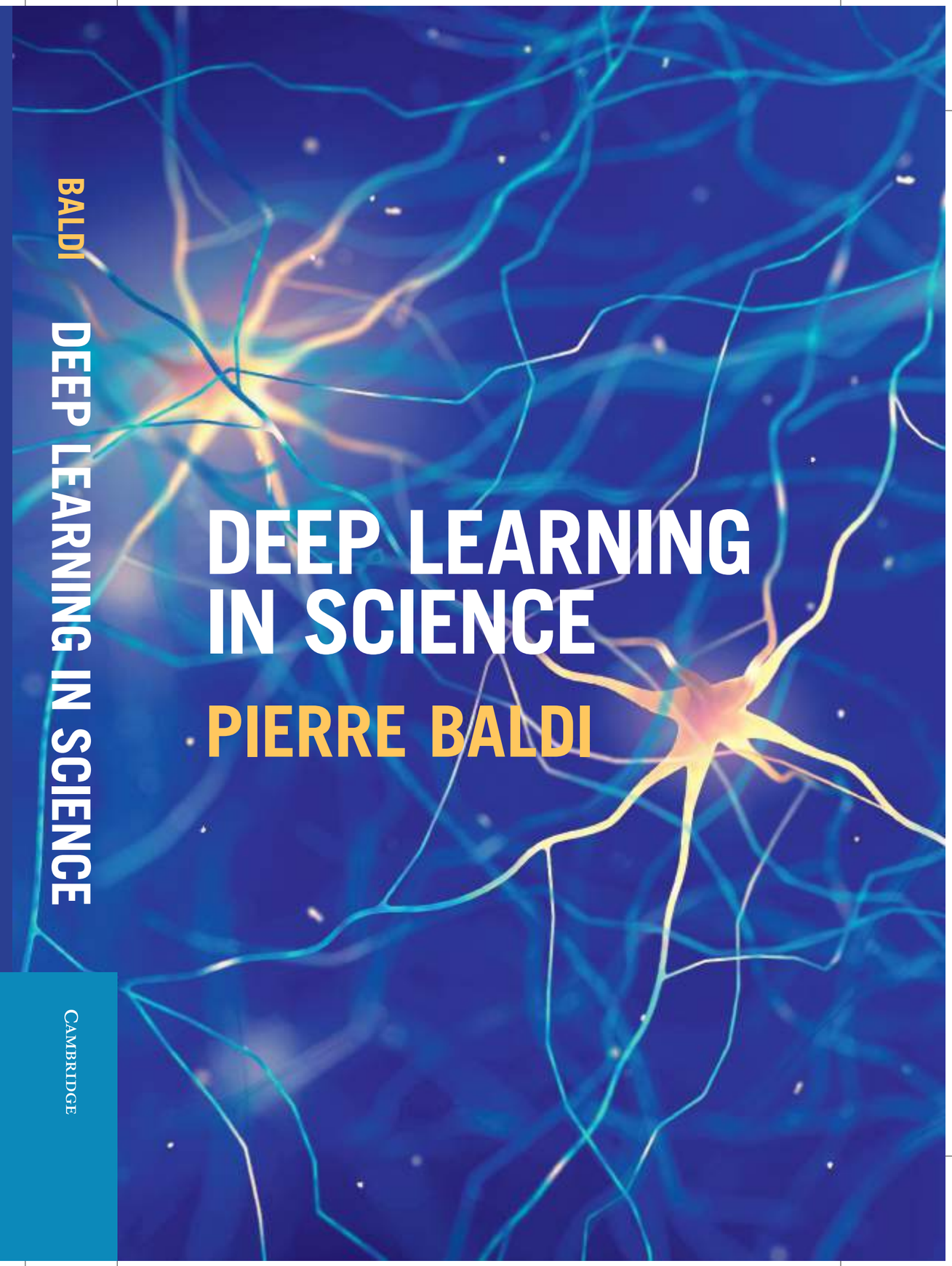

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