1. Record Nr. UNINA9910793294503321 Autore Li Fanzhang Titolo Lie group machine learning / / Li Fanzhang, Zhang Li, Zhang Zhao Berlin; ; Boston:,: De Gruyter,, [2019] Pubbl/distr/stampa ©2019 **ISBN** 3-11-049950-9 3-11-049807-3 Descrizione fisica 1 online resource (534 pages) Disciplina 006.31 Soggetti Machine learning Lie groups Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Frontmatter -- Preface -- Contents -- 1. Lie group machine learning Nota di contenuto model -- 2. Lie group subspace orbit generation learning -- 3. Symplectic group learning -- 4. Quantum group learning -- 5. Lie group fibre bundle learning -- 6. Lie group covering learning -- 7. Lie group deep structure learning -- 8. Lie group semi-supervised learning -- 9. Lie group kernel learning -- 10. Tensor learning -- 11. Frame

bundle connection learning -- 12. Spectral estimation learning -- 13. Finsler geometric learning -- 14. Homology boundary learning -- 15. Category representation learning -- 16. Neuromorphic synergy learning -- 17. Appendix -- Authors -- Index

Sommario/riassunto

This book explains deep learning concepts and derives semisupervised learning and nuclear learning frameworks based on cognition mechanism and Lie group theory. Lie group machine learning is a theoretical basis for brain intelligence, Neuromorphic learning (NL), advanced machine learning, and advanced artificial intelligence. The book further discusses algorithms and applications in tensor learning. spectrum estimation learning, Finsler geometry learning, Homology boundary learning, and prototype theory. With abundant case studies, this book can be used as a reference book for senior college students and graduate students as well as college teachers and scientific and technical personnel involved in computer science, artificial intelligence, machine learning, automation, mathematics, management science, cognitive science, financial management, and data analysis. In addition, this text can be used as the basis for teaching the principles of machine learning. Li Fanzhang is professor at the Soochow University, China. He is director of network security engineering laboratory in Jiangsu Province and is also the director of the Soochow Institute of industrial large data. He published more than 200 papers, 7 academic monographs, and 4 textbooks. Zhang Li is professor at the School of Computer Science and Technology of the Soochow University. She published more than 100 papers in journals and conferences, and holds 23 patents. Zhang Zhao is currently an associate professor at the School of Computer Science and Technology of the Soochow University. He has authored and co-authored more than 60 technical papers.