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Nota di contenuto	Adaptive Jacobian based Trajectory Tracking for Redundant Manipulators with Model Uncertainties in Repetitive Tasks -- RNN based Trajectory Control for Manipulators with Uncertain Kinematic Parameters -- RNN Based Adaptive Compliance Control for Robots with Model Uncertainties -- Deep RNN based Obstacle Avoidance Control for Redundant Manipulators .
Sommario/riassunto	This open access book mainly focuses on the safe control of robot manipulators. The control schemes are mainly developed based on dynamic neural network, which is an important theoretical branch of deep reinforcement learning. In order to enhance the safety performance of robot systems, the control strategies include adaptive tracking control for robots with model uncertainties, compliance control in uncertain environments, obstacle avoidance in dynamic workspace. The idea for this book on solving safe control of robot arms was conceived during the industrial applications and the research discussion in the laboratory. Most of the materials in this book are derived from the authors' papers published in journals, such as IEEE Transactions on Industrial Electronics, neurocomputing, etc. This book

can be used as a reference book for researcher and designer of the robotic systems and AI based controllers, and can also be used as a reference book for senior undergraduate andgraduate students in colleges and universities.