

1. Record Nr.	UNINA9910484119403321
Autore	Brandimarte Paolo
Titolo	From Shortest Paths to Reinforcement Learning : A MATLAB-Based Tutorial on Dynamic Programming // by Paolo Brandimarte
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-61867-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XI, 207 p. 67 illus.)
Collana	EURO Advanced Tutorials on Operational Research, , 2364-6888
Disciplina	519.703
Soggetti	Operations research Management science Econometrics Numerical analysis Social sciences - Mathematics Industrial Management Operations Research and Decision Theory Operations Research, Management Science Quantitative Economics Numerical Analysis Mathematics in Business, Economics and Finance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The dynamic programming principle -- Implementing dynamic programming -- Modeling for dynamic programming -- Numerical dynamic programming for discrete states -- Approximate dynamic programming and reinforcement learning for discrete states -- Numerical dynamic programming for continuous states -- Approximate dynamic programming and reinforcement learning for continuous states.
Sommario/riassunto	Dynamic programming (DP) has a relevant history as a powerful and flexible optimization principle, but has a bad reputation as a computationally impractical tool. This book fills a gap between the statement of DP principles and their actual software implementation.

Using MATLAB throughout, this tutorial gently gets the reader acquainted with DP and its potential applications, offering the possibility of actual experimentation and hands-on experience. The book assumes basic familiarity with probability and optimization, and is suitable to both practitioners and graduate students in engineering, applied mathematics, management, finance and economics.
