1. Record Nr. UNINA9910254085103321 Autore Hinderer Karl Titolo Dynamic Optimization: Deterministic and Stochastic Models // by Karl Hinderer, Ulrich Rieder, Michael Stieglitz Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-48814-7 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XXII, 530 p. 22 illus.) Collana Universitext,, 0172-5939 Disciplina 519.3 Soggetti Operations research Management science System theory Mathematical optimization **Probabilities** Operations Research, Management Science Systems Theory, Control Discrete Optimization Probability Theory and Stochastic Processes Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction and Organization of the Book -- Part I Deterministic Models -- Part II Markovian Decision Processes -- Part III Generalizations of Markovian Decision Processes -- Part IV Appendix. Sommario/riassunto This book explores discrete-time dynamic optimization and provides a detailed introduction to both deterministic and stochastic models. Covering problems with finite and infinite horizon, as well as Markov renewal programs. Bayesian control models and partially observable processes, the book focuses on the precise modelling of applications in a variety of areas, including operations research, computer science, mathematics, statistics, engineering, economics and finance. Dynamic Optimization is a carefully presented textbook which starts with

discrete-time deterministic dynamic optimization problems, providing

proceeding to the more complicated stochastic models. The authors

readers with the tools for sequential decision-making, before

present complete and simple proofs and illustrate the main results with numerous examples and exercises (without solutions). With relevant material covered in four appendices, this book is completely self-contained.