Record Nr. UNINA9910254084403321 Autore Qin Yuming Titolo Integral and Discrete Inequalities and Their Applications: Volume I: Linear Inequalities // by Yuming Qin Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Birkhäuser,, 2016 **ISBN** 9783319333014 Edizione [1st ed. 2016.] 1 online resource (XVI, 989 p. 9 illus.) Descrizione fisica Disciplina 515.8 Soggetti Functions of real variables Differential equations Differential equations, Partial Integral equations Difference equations Functional equations Real Functions **Ordinary Differential Equations** Partial Differential Equations **Integral Equations** Difference and Functional Equations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Preface -- Linear One-Dimensional Continuous Integral Inequalities --

Linear One-Dimensional Discrete (Difference) Inequalities -- Linear One-Dimensional Discontinuous Integral Inequalities -- Applications of Linear One-Dimensional Inequalities -- Linear Multi-Dimensional Continuous Integral Inequalities -- Linear Multi-Dimensional Discrete (Difference) Inequalities -- Linear Multi-Dimensional Discontinuous Integral Inequalities -- Applications of Linear Multi-Dimensional

Integral and Difference Inequalities.

Sommario/riassunto This book focuses on one- and multi-dimensional linear integral and

discrete Gronwall-Bellman type inequalities. It provides a useful collection and systematic presentation of known and new results, as

well as many applications to differential (ODE and PDE), difference, and integral equations. With this work the author fills a gap in the literature on inequalities, offering an ideal source for researchers in these topics. The present volume is part 1 of the author's two-volume work on inequalities. Integral and discrete inequalities are a very important tool in classical analysis and play a crucial role in establishing the well-posedness of the related equations, i.e., differential, difference and integral equations.