Record Nr. UNINA9910917201203321 Autore Srivastava S. M (Shashi Mohan) **Titolo** An Introduction to Naïve Set Theory and Its Applications / / by Shashi Mohan Srivastava Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9789819746439 9789819746422 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (143 pages) Collana University Texts in the Mathematical Sciences, , 2731-9326 Disciplina 511.322 Soggetti Set theory Logic, Symbolic and mathematical Set Theory Mathematical Logic and Foundations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Functions and Relations -- Ordinal and Cardinal Nota di contenuto Numbers -- Applications in Other Branches of Mathematics -- Banach-Tarski Paradox. Sommario/riassunto Primarily designed for graduate students of mathematics, this textbook delves into Naïve set theory, offering valuable insights for senior undergraduate students and researchers specializing in set theory. Commencing with a comprehensive exploration of functions and relations, the book extends its coverage to various applications of Naïve set theory across multiple mathematical branches, including real analysis, linear and abstract algebra, general topology, and introductory aspects of complex analysis and measure theory. The text meticulously introduces cardinal and ordinal numbers, along with transfinite induction, following the natural progression discovered by Cantor during his examination of trigonometric series. While this book provides a solid foundation, students intrigued by set theory for its intrinsic value should recognize that the subject extends far beyond the

scope of this text.