Record Nr. UNINA9910557404003321 Autore Karapinar Erdal Titolo Theory and Application of Fixed Point Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 1 electronic resource (220 p.) Descrizione fisica Soggetti Research & information: general Mathematics & science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico In the past few decades, several interesting problems have been solved Sommario/riassunto using fixed point theory. In addition to classical ordinary differential equations and integral equation, researchers also focus on fractional differential equations (FDE) and fractional integral equations (FIE). Indeed, FDE and FIE lead to a better understanding of several physical phenomena, which is why such differential equations have been highly appreciated and explored. We also note the importance of distinct abstract spaces, such as quasi-metric, b-metric, symmetric, partial metric, and dislocated metric. Sometimes, one of these spaces is more suitable for a particular application. Fixed point theory techniques in partial metric spaces have been used to solve classical problems of the semantic and domain theory of computer science. This book contains some very recent theoretical results related to some new types of contraction mappings defined in various types of spaces. There are also studies related to applications of the theoretical findings to mathematical models of specific problems, and their approximate

its applications.

computations. In this sense, this book will contribute to the area and provide directions for further developments in fixed point theory and