1. Record Nr. UNINA9910553072103321 Autore Sabatier J (Jocelyn) Titolo Fractional behaviours modelling: analysis and application of several unusual tools / / Jocelyn Sabatier, Christophe Farges, and Vincent Tartaglione Cham, Switzerland:,: Springer,, [2022] Pubbl/distr/stampa ©2022 ISBN 3-030-96749-2 Descrizione fisica 1 online resource (139 pages): illustrations (some color) Intelligent Systems, Control and Automation: Science and Engineering; Collana ; v.101 Disciplina 515.83 Soggetti Stochastic processes Fractional calculus Fractional programming Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Introduction Power-law type dynamic behaviours Fractional order Nota di contenuto models Introduction of new kernels Volterra equation Non-linear models Partial differential equations with spatially variable coefficients This book is dedicated to the analysis and modelling of fractional Sommario/riassunto behaviours that mainly result from physical stochastic phenomena (diffusion, adsorption or aggregation, etc.) of a population (ions, molecules, people, etc.) in a constrained environment and that can be found in numerous areas. It breaks with the usual approaches based on fractional models since it proposes to use unusual models which have the advantage of overcoming some of the limitations of fractional

models.