1. Record Nr. UNINA9910299684703321 Autore Davvaz Bijan Titolo Fuzzy Algebraic Hyperstructures: An Introduction / / by Bijan Davvaz, Irina Cristea Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-14762-5 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (X, 242 p. 1 illus.) Collana Studies in Fuzziness and Soft Computing, , 1434-9922;; 321 Disciplina 511.322 Soggetti Computational intelligence Algebra Computer science—Mathematics Computational Intelligence General Algebraic Systems Symbolic and Algebraic Manipulation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia includes bibliographical references and index. Nota di contenuto Fundamentals of Algebraic (Hyper)Structures -- Fuzzy Polygroups --Fuzzy Hv-Subgroups of Hv-Groups -- Hv-Rings (hyperrings) and Hv-Ideal -- Connections Between Hypergroups And Fuzzy Sets. Sommario/riassunto This book is intended as an introduction to fuzzy algebraic hyperstructures. As the first in its genre, it includes a number of topics, most of which reflect the authors' past research and thus provides a starting point for future research directions. The book is organized in five chapters. The first chapter introduces readers to the basic notions of algebraic structures and hyperstructures. The second covers fuzzy sets, fuzzy groups and fuzzy polygroups. The following two chapters are concerned with the theory of fuzzy Hv-structures: while the third chapter presents the concept of fuzzy Hv-subgroup of Hv-groups, the fourth covers the theory of fuzzy Hv-ideals of Hv-rings. The final chapter discusses several connections between hypergroups and fuzzy sets, and includes a study on the association between hypergroupoids

and fuzzy sets endowed with two membership functions. In addition to providing a reference guide to researchers, the book is also intended as

textbook for undergraduate and graduate students.