Record Nr. UNINA9910783187003321 Autore **Zwick Martin** Titolo Reconstructability analysis [[electronic resource]]: theory and applications / / Martin Zwick Bradford, West Yorkshire, England, : Emerald Group Publishing, 2004 Pubbl/distr/stampa **ISBN** 1-280-51531-7 9786610515318 1-84544-391-8 Descrizione fisica 1 online resource (212 p.) Collana Kybernetes. no. 5/6;;33 003 Disciplina 003.5 Soggetti Cybernetics Systems engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di contenuto CONTENTS; EDITORIAL ADVISORY BOARD; Abstracts and keywords; Preface; Editorial; An overview of reconstructability analysis; Modified reconstructability analysis for many-valued functions and relations: Reversible modified reconstructability analysis of Boolean circuits and its quantum computation; A comparison of modified reconstructability analysis and Ashenhurst-Curtis decomposition of Boolean functions: Multi-level decomposition of probabilistic relations: The k-systems glitch: granulation of predictor variables; Directed extended dependency analysis for data mining Instant modelling and data-knowledge processing by reconstructability analysisApplication of reconstructability analysis in system structure: A software architecture for reconstructability analysis; Forecast entropy; The forecast model of system reconstructability analysis; Construction of main sequence of gene based on "method of factor reconstruction" analysis"; Reconstructability analysis with Fourier transforms; Statebased reconstructability analysis; Reconstructability analysis detection of optimal gene order in genetic algorithms; Book reviews; Book reports; Announcements

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Sommario/riassunto

A novel many-valued decomposition within the framework of lossless reconstructability analysis (RA) is presented. In previous work, modified reconstructability analysis (MRA) was applied to Boolean functions, where it was shown that most Boolean functions not decomposable using conventional reconstructability analysis (CRA) are decomposable using MRA. Also, it was previously shown that whenever decomposition exists in both MRA and CRA, MRA yields simpler or equal complexity decompositions. In this paper, MRA is extended to many-valued logic functions, and logic structures that correspond to su