Record Nr. UNISA996466105403316 Applications of uncertainty formalisms / / Anthony Hunter, Simon D. **Titolo** Parsons (Eds.) Pubbl/distr/stampa Berlin; ; Heidelberg:,: Springer,, [1998] ©1998 3-540-49426-X **ISBN** [1st ed. 1998.] Edizione Descrizione fisica 1 online resource (VIII, 474 p. 64 illus.) Collana Lecture Notes in Computer Science; ; 1455 Disciplina 003.54 Uncertainty (Information theory) Soggetti 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 indexes. Nota di contenuto to uncertainty formalisms -- A Review of Uncertainty Handling Formalisms -- Application case studies -- Using Uncertainty Management Techniques in Medical Therapy Planning: a Decision-Theoretic approach -- An Ordinal Approach to the Processing of Fuzzy Queries with Flexible Quantifiers -- Using Uncertainty Techniques in Radio Communication Systems -- Handling imperfect knowledge in Milord II for the identification of marine sponges -- Qualitative risk assessment fulfils a need -- Information Retrieval and Dempster-Shafer's Theory of Evidence -- Uncertainty Measures associated with Fuzzy Rules for Connection Admission Control in ATM Networks --Handling uncertainty in control of autonomous robots -- Some Problems in Trying to Implement Uncertainty Techniques in Automated Inspection -- Correlation using uncertain and temporal information --Arguing about beliefs and actions -- Analysis of Multi-Interpretable Ecological Monitoring Information -- Technology for applications -- A local handling of inconsistent knowledge and default bases -- The XRay system: An implementation platform for local guery-answering in default logics -- Model-based Diagnosis: A Probabilistic Extension --

Sommario/riassunto An introductory review of uncertainty formalisms by the volume editors

Assumption-Based Systems.

Background to and Perspectives on Possibilistic Graphical Models --How much does an agent believe: an extension of modal epistemic logic -- Safety Logics -- Modeling Uncertainty with Propositional begins the volume. The first main part of the book introduces some of the general problems dealt with in research. The second part is devoted to case studies; each presentation in this category has a well-delineated application problem and an analyzed solution based on an uncertainty formalism. The final part reports on developments of uncertainty formalisms and supporting technology, such as automated reasoning systems, that are vital to making these formalisms applicable. The book ends with a useful subject index. There is considerable synergy between the papers presented. The representative collection of case studies and associated techniques make the volume a particularly coherent and valuable resource. It will be indispensable reading for researchers and professionals interested in the application of uncertainty formalisms as well as for newcomers to the topic.