Record Nr. UNISA996465947603316 Autore Weichselberger Kurt Titolo A Methodology for Uncertainty in Knowledge-Based Systems [[electronic resource] /] / by Kurt Weichselberger, Sigrid Pöhlmann Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 1990 **ISBN** 3-540-46964-8 Edizione [1st ed. 1990.] Descrizione fisica 1 online resource (X, 310 p.) Collana Lecture Notes in Artificial Intelligence;; 419 006.3/3 Disciplina Soggetti Artificial intelligence **Probabilities Statistics** Artificial Intelligence Probability Theory and Stochastic Processes Statistics, general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto The aims of this study -- Interval estimation of probabilities -- Related theories -- The simplest case of a diagnostic system -- Generalizations -- Interval estimation of probabilities in diagnostic systems -- A demonstration of the use of interval estimation. In this book the consequent use of probability theory is proposed for Sommario/riassunto handling uncertainty in expert systems. It is shown that methods violating this suggestion may have dangerous consequences (e.g., the Dempster-Shafer rule and the method used in MYCIN). The necessity of some requirements for a correct combining of uncertain information in expert systems is demonstrated and suitable rules are provided. The possibility is taken into account that interval estimates are given instead of exact information about probabilities. For combining information containing interval estimates rules are provided which are

useful in many cases.