1. Record Nr. UNISA996465814503316 Learning Classifier Systems [[electronic resource]]: 5th International **Titolo** Workshop, IWLCS 2002, Granada, Spain, September 7-8, 2002, Revised Papers // edited by Pier Luca Lanzi, Wolfgang Stolzmann, Stewart W. Wilson Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2003 **ISBN** 3-540-40029-X Edizione [1st ed. 2003.] Descrizione fisica 1 online resource (VII, 233 p.) Collana Lecture Notes in Artificial Intelligence;; 2661 Disciplina 006.31 Soggetti Artificial intelligence Computers Mathematical logic Database management Artificial Intelligence Computation by Abstract Devices Mathematical Logic and Formal Languages **Database Management** 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 at the end of each chapters and index. Nota di contenuto Balancing Specificity and Generality in a Panmictic-Based Rule-Discovery Learning Classifier System -- A Ruleset Reduction Algorithm for the XCS Learning Classifier System -- Adapted Pittsburgh-Style Classifier-System: Case-Study -- The Effect of Missing Data on Learning Classifier System Learning Rate and Classification Performance -- XCS's Strength-Based Twin: Part I -- XCS's Strength-Based Twin: Part II -- Further Comparison between ATNoSFERES and XCSM --Accuracy, Parsimony, and Generality in Evolutionary Learning Systems via Multiobjective Selection -- Anticipatory Classifier System Using Behavioral Sequences in Non-Markov Environments -- Mapping Artificial Immune Systems into Learning Classifier Systems -- The 2003 Learning Classifier Systems Bibliography.

Sommario/riassunto

The 5th International Workshop on Learning Classi?er Systems (IWLCS2002) was held September 7-8, 2002, in Granada, Spain, during the 7th International Conference on Parallel Problem Solving from Nature (PPSN VII). We have included in this volume revised and extended versions of the papers presented at the workshop. In the ?rst paper, Browne introduces a new model of learning classi?er system, iLCS, and tests it on the Wisconsin Breast Cancer classi?cation problem. Dixon et al. present an algorithm for reducing the solutions evolved by the classi?er system XCS, so as to produce a small set of readily understandable rules. Enee and Barbaroux take a close look at Pittsburgh-style classi?er systems, focusing on the multi-agent problem known as El-farol. Holmes and Bilker investigate the effect that various types of missing data have on the classi?cation performance of learning classi?er systems. The two papers by Kovacs deal with an important theoretical issue in learning classi?er systems: the use of accuracy-based ?tness as opposed to the more traditional strength-based ?tness. In the ?rst paper, Kovacs introduces a strengthbased version of XCS, called SB-XCS. The original XCS and the new SB-XCS are compared in the second paper, where - vacs discusses the different classes of solutions that XCS and SB-XCS tend to evolve.