1. Record Nr.   UNINA9910144151303321

   Titolo   KI 2004: Advances in Artificial Intelligence : 27th Annual German
                       Conference in AI, KI 2004, Ulm, Germany, September 20-24, 2004,
                       Proceedings / / edited by Susanne Biundo, Thom Frühwirth, Günther
                       Palm

   Pubbl/distr/stampa Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer,
                       , 2004

   ISBN   3-540-30221-2

   Edizione   [1st ed. 2004.]

   Descrizione fisica 1 online resource (XII, 472 p.)

   Collana   Lecture Notes in Artificial Intelligence ; ; 3238

   Disciplina   006.3

   Soggetti   Artificial intelligence
                       Artificial Intelligence

   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   Invited Talks -- Automated Reasoning Tools for Molecular Biology -- ?
                       mega: Computer Supported Mathematics -- An Overview of Planning
                       Technology in Robotics -- SmartWeb: Mobile Applications of the
                       Semantic Web -- Machine Learning for Autonomous Robots -- Natural
                       Language Processing -- Generation of Sentence Parse Trees Using Parts
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                       ranking of Search Results -- A Pragmatics-First Approach to the
                       Analysis and Generation of Dialogues -- Hybrid Natural Language
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                       Representation and Ontologies -- Mining Hierarchical Temporal
                       Patterns in Multivariate Time Series -- Using Behavioral Knowledge for
                       Situated Prediction of Movements -- Integration of Manual and
                       Automatic Text Categorization. A Categorization Workbench for Text-
                       Based Email and Spam -- Model Based Deduction for Database Schema
                       Reasoning -- Planning and Search -- Applying Automatic Planning
                       Systems to Airport Ground-Traffic Control – A Feasibility Study --
                       Generalizing the Relaxed Planning Heuristic to Non-linear Tasks --
                       Decision-Theoretic Planning for Playing Table Soccer -- External A* --
                       Neural Networks and Machine Learning -- Combining Recurrent Neural

Networks and Support Vector Machines for Structural Pattern Recognition -- Genre Classification of Web Pages -- Integration of Statistical and Neural Methods to Design Classifiers in Case of Unequal Covariance Matrices -- Semiring Artificial Neural Networks and Weighted Automata -- A New Method to Fit a Linear Regression Model for Interval-Valued Data -- Reasoning -- Specifying Abnormal Action Qualifications with Sensing in FLUX -- On-Line Decision-Theoretic Golog for Unpredictable Domains -- Relation Variables in Qualitative Spatial Reasoning -- Default Reasoning over Domains and Concept Hierarchies -- Improving Fault Localization of Programs by Using Labeled Dependencies -- Improving the Scalability of Rule Base Verification Using Binary Decision Diagrams: An Empirical Study -- Modeling of Tutoring Processes in Intelligent Tutoring Systems -- Robotics and Machine Perception -- A New Method for Asynchronous Multisensor Information Fusion -- Adaptive Vision for Playing Table Soccer -- Shape-Based Robot Mapping -- Vision-Based Facial and Eye Gaze Tracking System.

| Sommario/riassunto | KI2004wasthe27theditionoftheannualGermanConferenceonArti?cialIntligence, which traditionally brings together academic and industrial researchers from all areas of AI and which enjoys increasing international attendance. KI 2004 received 103 submissions from 26 countries. This volume contains the 30 papers that were ?nally selected for presentation at the conference. The papers cover quite a broad spectrum of "classical" subareas of AI, like na- ral language processing, neural networks, knowledge representation, reasoning, planning, and search. When looking at this year's contributions, it was exciting to observe that there was a strong trend towards actual real-world applications of AI technology. A majority of contributions resulted from or were motivated by applications in a variety of areas. Examples include applications of pl- ning, where the technology is being exploited for taxiway tra?c control and game playing; natural language processing and knowledge representation are enabling advanced Web-based information processing; and the integration of - sults from automated reasoning, neural networks and machine perception into robotics leads to signi?cantly improved capabilities of autonomous systems. The technical programme of KI 2004 was highlighted by invited talks from outstanding researchers in the areas of automated reasoning, robot planning, constraintreasoning,machinelearning, andsemanticWeb:Jorg ̈ Siekmann(DFKI andUniversityofSaarland, Saarbruc ̈ ken),MalikGhallab(LAAS-CNRS,Toulouse), Franco ̧ is Fages (INRIA Rocquencourt), Martin Riedmiller (University of - nabru ̈ck), andWolfgangWahlster(DFKIandUniversityofSaarland,Saarbruc ̈ ken). Their invited papers are also presented in this volume. |