Record Nr. UNISA996465834503316 Artificial intelligence in medicine: 12th Conference on Artificial **Titolo** Intelligence in Medicine, AIME 2009, Verona, Italy, July 18-22, 2009: proceedings / / Carlo Combi, Yuval Shahar, Ameen Abu-Hanna (editors) Berlin; New York:,: Springer,, [2009] Pubbl/distr/stampa ©2009 **ISBN** 1-282-33193-0 9786612331930 3-642-02976-0 Edizione [1st ed. 2009.] Descrizione fisica 1 online resource (454 p.) Lecture notes in computer science : : 5651 Collana Disciplina 610.28563 Soggetti Artificial intelligence - Medical applications Medical informatics Artificial intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based on print version record. Nota di bibliografia Includes bibliographical references and index. Invited Talks -- Discovering Novel Adverse Drug Events Using Natural Nota di contenuto Language Processing and Mining of the Electronic Health Record --Computer Vision: A Plea for a Constructivist View -- Temporal Reasoning and Temporal Data Mining -- Mining Healthcare Data with Temporal Association Rules: Improvements and Assessment for a Practical Use -- A Temporal Data Mining Approach for Discovering Knowledge on the Changes of the Patient's Physiology -- Severity Evaluation Support for Burns Unit Patients Based on Temporal Episodic Knowledge Retrieval -- Using Temporal Constraints to Integrate Signal Analysis and Domain Knowledge in Medical Event Detection --Temporal Data Mining of HIV Registries: Results from a 25 Years Follow-Up -- Therapy Planning, Scheduling and Guideline-Based Care -- Modeling Clinical Guidelines through Petri Nets -- Optimization of Online Patient Scheduling with Urgencies and Preferences -- Towards the Merging of Multiple Clinical Protocols and Guidelines via Ontology-

Driven Modeling -- Analysing Clinical Guidelines' Contents with Deontic and Rhetorical Structures -- A Hybrid Approach to Clinical

Guideline and to Basic Medical Knowledge Conformance -- Goal-Based Decisions for Dynamic Planning -- Genetic Algorithm Based Scheduling of Radiotherapy Treatments for Cancer Patients -- Case-Based Reasoning -- Feasibility of Case-Based Beam Generation for Robotic Radiosurgery -- Conversational Case-Based Reasoning in Medical Classification and Diagnosis -- Medical Imaging -- Histopathology Image Classification Using Bag of Features and Kernel Functions --Improving Probabilistic Interpretation of Medical Diagnoses with Multiresolution Image Parameterization: A Case Study -- Segmentation of Lung Tumours in Positron Emission Tomography Scans: A Machine Learning Approach -- A System for the Acquisition, Interactive Exploration and Annotation of Stereoscopic Images -- Knowledge-Based and Decision-Support Systems -- Implementing a Clinical Decision Support System for Glucose Control for the Intensive Cardiac Care -- Steps on the Road to Clinical Application of Decision Support -Example TREAT -- Integrating Healthcare Knowledge Artifacts for Clinical Decision Support: Towards Semantic Web Based Healthcare Knowledge Morphing -- A Knowledge-Based System to Support Emergency Medical Services for Disabled Patients -- A Mobile Clinical Decision Support System for Clubfoot Treatment -- An Ambient Intelligent Agent for Relapse and Recurrence Monitoring in Unipolar Depression -- An Advanced Platform for Managing Complications of Chronic Diseases -- One Telemedical Solution in Bulgaria -- A Novel Multilingual Report Generation System for Medical Applications --Ontologies, Terminologies and Natural Language -- CORAAL - Towards Deep Exploitation of Textual Resources in Life Sciences -- Detecting Intuitive Mentions of Diseases in Narrative Clinical Text -- Using Existing Biomedical Resources to Detect and Ground Terms in Biomedical Literature -- An Ontology for the Care of the Elder at Home -- Ontology-Based Personalization and Modulation of Computerized Cognitive Exercises -- HomeNL: Homecare Assistance in Natural Language. An Intelligent Conversational Agent for Hypertensive Patients Management -- Explaining Anomalous Responses to Treatment in the Intensive Care Unit -- Multiple Terminologies in a Health Portal: Automatic Indexing and Information Retrieval -- CodeSlinger: An Interactive Biomedical Ontology Browser -- Data Mining, Machine Learning, Classification and Prediction -- Subgroup Discovery in Data Sets with Multi-dimensional Responses: A Method and a Case Study in Traumatology -- A Framework for Multi-class Learning in Micro-array Data Analysis -- Mining Safety Signals in Spontaneous Reports Database Using Concept Analysis -- Mealtime Blood Glucose Classifier Based on Fuzzy Logic for the DIABTel Telemedicine System -- Providing Objective Feedback on Skill Assessment in a Dental Surgical Training Simulator -- Voice Pathology Classification by Using Features from High-Speed Videos -- Analysis of EEG Epileptic Signals with Rough Sets and Support Vector Machines -- Automatic Detecting Documents Containing Personal Health Information -- Segmentation of Text and Non-text in On-Line Handwritten Patient Record Based on Spatio-Temporal Analysis -- An Ontology-Based Method to Link Database Integration and Data Mining within a Biomedical Distributed KDD --Subgroup Discovery for Weight Learning in Breast Cancer Diagnosis --Mining Discriminant Sequential Patterns for Aging Brain -- The Role of Biomedical Dataset in Classification -- Online Prediction of Ovarian Cancer -- Prediction of Mechanical Lung Parameters Using Gaussian Process Models -- Learning Approach to Analyze Tumour Heterogeneity in DCE-MRI Data During Anti-cancer Treatment --Predicting the Need to Perform Life-Saving Interventions in Trauma Patients by Using New Vital Signs and Artificial Neural Networks --

Probabilistic Modeling and Reasoning -- Causal Probabilistic Modelling for Two-View Mammographic Analysis -- Modelling Screening Mammography Images: A Probabilistic Relational Approach -- Data-Efficient Information-Theoretic Test Selection -- Gene and Protein Data -- Effect of Background Correction on Cancer Classification with Gene Expression Data -- On Quality of Different Annotation Sources for Gene Expression Analysis -- An Architecture for Automated Reasoning Systems for Genome-Wide Studies -- A Mutual Information Approach to Data Integration for Alzheimer's Disease Patients.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 12th Conference on Artificial Intelligence in Medicine in Europe, AIME 2009, held in Verona, Italy in July 2009. The 24 revised long papers and 36 revised short papers presented together with 2 invited talks were carefully reviewed and selected from 140 submissions. The papers are organized in topical sections on agent-based systems, temporal data mining, machine learning and knowledge discovery, text mining, natural language processing and generation, ontologies, decision support systems, applications of AI-based image processing techniques, protocols and guidelines, as well as workflow systems.