

Lecture Notes in Artificial Intelligence

934

Subseries of Lecture Notes in Computer Science

Edited by J. G. Carbonell and J. Siekmann

Lecture Notes in Computer Science

Edited by G. Goos, J. Hartmanis and J. van Leeuwen

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Artificial Intelligence in Medicine

5th Conference on Artificial Intelligence
in Medicine Europe, AIME '95
Pavia, Italy, June 25-28, 1995
Proceedings



Springer

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CR Subject Classification (1991): I.2, I.4, J.3, H.4

ISBN 3-540-60025-6 Springer-Verlag Berlin Heidelberg New York

CIP data applied for

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Printed in Germany

Typesetting: Camera ready by author
SPIN: 10486282 06/3142 – 543210 – Printed on acid-free paper

Preface

The European Society for Artificial Intelligence in Medicine (AIME) was established in 1986 after a highly successful workshop held in Pavia the year before. The aims of AIME are to foster fundamental and applied research in the application of Artificial Intelligence techniques to medical care and medical research, and to provide a forum for reporting significant results at biennial conferences. In accordance with this latter goal, this volume contains the proceedings of AIME'95, the 5th Conference on Artificial Intelligence in Europe, which follows previous conferences held in Marseille (1987), London (1989), Maastricht (1991) and Munich (1993).

In the announcement of the conference, authors were encouraged to submit original contributions to the development of theory, techniques, and applications of AI in medicine. Contributions to theory should include a presentation or an analysis of the properties of novel AI methodologies potentially useful to solve relevant medical problems. Papers on techniques should describe the development or extension of AI methods and their implementation, and discuss the assumptions and limitations which characterize the proposed methods. Application papers should describe the implementation of AI systems to solve significant medical problems, and present sufficient information to allow evaluation of practical benefits of using the system.

This call resulted in 64 papers and 10 posters being submitted to the conference. Each of them was evaluated by at least two members of the Programme Committee and were classified according to their originality, relevance, quality and clarity, as well as an overall impression. Based on these marks the papers were sorted, and the best 32 were eventually selected for presentation in oral presentations, and published in the proceedings. All of them were rated as Good or Very Good by the evaluators from the Programme Committee, and some of them even received an Excellent mark in some of the above items. Some papers also rated as Good could not be accepted for presentation due to time limitations. Given their quality, all these and others considered as Fair by the Programme Committee will be presented in special poster sessions during the conference. An extended abstract is included in this volume.

As a whole, it is our impression that the effort of organising the AIME Conferences is paying off well, and that the quality of the papers has been steadily increasing. We are thus confident that this steady increase will continue in the future and that this Conference will continue to help in this process.

We would like to finish by thanking all that contributed to the success of this Conference: the authors, the members of the Programme Committee and the Organizing Committee; the invited speakers, Mark Musen and Alexandre Herold; the organisers of the tutorials, Robert Macura and Katarzyna Macura (Case-Based Reasoning), Colin Gordon and Ian Herbert (Guidelines and Protocols), Oivind Braaten (Genetic Algorithms) and Mark Musen (Knowledge Sharing and Reuse) for their relevant contribution to the conference; and the institutions that sponsored the conference, namely Consiglio Nazionale delle Ricerche, University of Pavia, Istituto di Analisi Numerica, C.N.R., Pavia, I.R.C.C.S. Policlinico San Matteo, Pavia and Consorzio di Bioingegneria e Informatica Medica, Pavia.

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