

5th International Workshop on
Intelligent Data Analysis
in Medicine and Pharmacology

(IDAMAP-2000)

A workshop at
the 14th European Conference on Artificial Intelligence
(ECAI-2000)

Berlin, Germany, August 2000

Proceedings

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Foreword

In all human activities, automatic data collection pushes towards the development of tools able to handle and analyze data in a computer-supported fashion. In the majority of the application areas, this task cannot be accomplished without using the available knowledge on the domain or on the data analysis process. This need becomes essential in biomedical applications, since medical decision-making needs to be supported by arguments based on basic medical and pharmacological knowledge.

Intelligent data analysis (IDA) methods support information extraction from data by potentially exploiting domain knowledge. Most common techniques include data mining, machine learning, temporal data abstraction, information visualization, case-based reasoning, statistical methods and combination thereof. To increase the chances of utilizing these methods within clinical practice, the intelligent data analysis process typically gains from interaction by medical experts in all its phases, from data gathering and cleaning to evaluation and exploitation of the results.

The objective of Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP) activities is to foster the development, adaptation or re-use of existing IDA methods to cope with real medical tasks. The ultimate goal of the people working on IDAMAP is the successful integration and employment of these methods in modern hospital and other information systems. The IDAMAP community is trying to increase the awareness and acceptance of IDA methods in medicine through papers that show their successful application.

The 16 (long and short) scientific papers included in the proceedings were selected after a detailed review by two members of the Program Committee.

History of the IDAMAP workshops

This is the fifth international workshop on Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP-2000) held as a one day workshop at the 14th European Conference on Artificial Intelligence (ECAI-2000) in Berlin, Germany, August 2000.

url: <http://www.ifs.tuwien.ac.at/~silvia/idamap2000>

The former IDAMAP workshops were as follows:

- The **first** Workshop on Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP-96) at the European Conference on Artificial Intelligence, 1996 (ECAI-96), in Budapest, Hungary, August 1996.
url: <http://www-ai.ijs.si/ailab/activities/idamap96.html>
- The **second** Workshop on Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP-97) at the International Joint Conference on Artificial Intelligence, 1997 (IJCAI-97), in Nagoya, Japan, August 1997.
url: <http://www-ai.ijs.si/ailab/activities/idamap97.html>
- The **third** Workshop on Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP-98), at the European Conference on Artificial Intelligence, 1998 (ECAI-98), in Brighton, UK, August 1998.
url: <http://aim.unipv.it/~ric/idamap98>
- The **fourth** Workshop on Intelligent Data Analysis in Medicine and Pharmacology (IDAMAP-99), at the American Medical Informatics Association (AMIA) 1999 Annual Symposium, in Washington, DC, USA, November 1999.
url: <http://www.ifs.tuwien.ac.at/~silvia/idamap99>

Acknowledgments

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