

Data Mining

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Data Mining

- **DM I: Foundations of Data Mining**
- **DM II: Advanced topics on Data Mining and case studies**

DM I: Foundations of Data Mining

- **Instructors**

- Dino Pedreschi, pedre@di.unipi.it
- Anna Monreale, anna.monreale@unipi.it

- **Teaching assistant**

- Riccardo Guidotti, guidotti@di.unipi.it

- **Classes**

- Monday 11:00 - 13:00 Room C
- Friday 14:00 - 16:00 Room A1

- **Office Hours**

- Monday 14:00 – 16:00
- Appointment by email (only when necessary)

DM I: Foundations of Data Mining

- **Web Page**

- <http://www.cli.di.unipi.it/doku/doku.php/dm/start>

- **Learning Material**

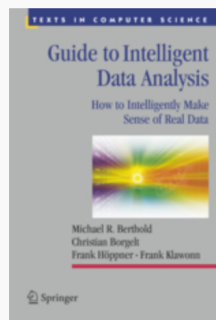
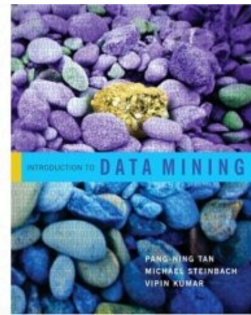
- **Textbook:** Pang-Ning Tan, Michael Steinbach, Vipin Kumar **Introduction to DATA MINING** Addison Wesley, ISBN 0-321-32136-7, 2006

- **Textbook:** Berthold, M.R., Borgelt, C., Höppner, F., Klawonn, F. **GUIDE TO INTELLIGENT DATA ANALYSIS**. Springer Verlag, 1st Edition., 2010. ISBN 978-1-84882-259-7

- **Slides of the classes**

- **Data mining software**

- **KNIME:** The Konstanz Information Miner. Download page
- **Scikit-learn:** python library with tools for data mining and data analysis



Exam

- A **written exam**, with exercises and questions about methods and algorithms presented during the classes.
 - It can be substitute with the first and second mid-term tests (November and December)
- A **project**, consisting in exercises that require the use of data mining tools for analysys of data. Exercises include: data understanding, market basket analysis, clustering analysis and classification.
 - The project has to be performed by max 3 people.
- An **oral exam**, that includes: (1) discussing the project report with a group presentation; (2) discussing topics presented during the classes, including the theory of the parts already covered by the written exam.

Mailing list

- Send as soon as possible a mail to anna.monreale@unipi.it with the following data:
 - subject: "DM1"
 - text:
 - name
 - surname
 - student-id
- You will be included in a mailing list of urgent news