

Data Mining II

DMA - Data mining: advanced topics and case studies

DM2, 2017

Instructors



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Contents

- Advanced/alternative data mining methods
- Sequential patterns
- Classification
 - KNN, Rule-based, SVM, etc.
 - Validation methods
- Time series
- Outlier/anomaly detection
- The data mining process at work (CRISP, etc.)

Contents

- Complex data types
 - Sequences
 - Time series
- Case studies in CRM
 - Churn analysis
 - Customer segmentation
 - Fraud detection
 - Cross-selling
 - Etc.

Classes

DM 2

Classes - Lezioni

Day of week	Hour	Room
Tuesday	16:00 - 18:00	B
Friday	16:00 - 18:00	B

Office hours - Ricevimento:

- Nanni : appointment by email, c/o ISTI-CNR

Exams

Same procedure as DM 1

- **Written exam**

- exercises and questions about all topics – sequential patterns, classification (advanced topics), times series, outliers detection, the data mining process
- Two (optional) mid-term exams will be given as replacement

- **Project(s)**

- Topics proposed during the classes
- Report to be sent 2 days before the oral exam
- Groups composed of up to 3 people
- To be performed using the tools presented during classes (Knime, Python, ...)

- **Oral exam**

- Short discussion of the project (group presentation, where possible)
- All topics presented during the classes

Web-site

- Same as DM 1:

<http://didawiki.di.unipi.it/doku.php/dm/>

Data Mining A.A. 2016/17

DM 1: Foundations of Data Mining

Instructors - Docenti:

- **Dino Pedreschi, Anna Monreale**
 - KDD Laboratory, Università di Pisa ed ISTI - CNR, Pisa
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Teaching assistant - Assistente:

- **Riccardo Guidotti**
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DM 2: Advanced topics on Data Mining and case studies

Instructors:

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