



**PlaCe-ITN**  
Pre-modern Plasters and Ceramics



# Training Workshop

## Data Management in Cultural Heritage

*Data processing, Data integration, Big Data, Artificial Intelligence and Data Mining*

*7 – 8 November 2022*

**N.C.S.R. "Demokritos"**

In the framework of the MSCA ITN *PlaCe* (<https://place-itn.cyi.ac.cy/>) a Two-day Training Workshop about 'Data Management in Cultural Heritage' is organized, which will take place at the N.C.S.R. "Demokritos", Athens, Greece. We are looking forward to organize the workshop jointly with the CAA-GR (<https://gr.caa-international.org/>) and as an open event with physical presence. The topics will concern the processing, evaluation and management of data collected in analytical studies of archaeological materials taking into account numerical as well as categorical parameters. A special focus will be on data integration and linking in databases with appropriate use of metadata and following the FAIR data principles (**F**indable, **A**ccessible, **I**nteroperable, **R**eusable, <https://www.go-fair.org/fair-principles/>). For the sustainable management of these Big Data repositories advanced methods for data mining and automated pattern recognition are necessary utilizing artificial intelligence, machine learning and neural networks. The theoretical lectures we will be complemented by two laboratory courses for practical training.

If you are interested in participating the Training Workshop and you would like to be updated about the organization please register at:

<https://forms.gle/PKbLqBQGc15btHRK8>

## Preliminary Programme

*Monday, 7 November*

9:30 – 10:00	Welcome at N.C.S.R. "Demokritos" and Introduction <i>Anno Hein</i>
10:00 – 11:15	The AriadnePlus Network <i>Markos Katsianis</i>
11:15 – 11:30	Coffee Break
11:30 – 13:00	Exploratory and model-based statistics <i>Ioulia Papageorgiou</i>
13:00 – 14:00	Lunch
14:00 – 15:30	Pattern recognition in ceramic assemblages <i>Jaume Buxeda I Garrigós</i>
15:30 – 15:45	Coffee Break
15:45 – 17:15	Data Management <i>Anno Hein</i>
17:30 – 19:00	Introduction to R & Practical Training

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*Tuesday, 8 November*

9:30 – 11:00	Automated pattern recognition and machine learning <i>George Giannakopoulos</i>
11:00 – 11:15	Coffee Break
11:15 – 12:45	Data Mining <i>George Giannakopoulos</i>
12:45 – 14:00	Lunch
14:00 – 15:30	Data Repositories and Relational Databases <i>Anno Hein</i>
15:30 – 15:45	Coffee Break
15:45 – 17:15	Self Organizing Maps for pattern recognition in pXRF data (Case Study) <i>Anno Hein</i>
17:30 – 19:00	Practical Training