



Program

Summer School on Applied Techniques “Hands-on data in education research”

Budapest, Hungary
October 16-18th, 2017.

Venue

Centre for Economic and Regional Studies of the Hungarian Academy of Sciences
Research Building of Human Sciences (MTA Humán Tudományok Kutatóháza)
Budapest, Tóth Kálmán u. 4, 1097. Hungary ([see map](#)).

October 16. Monday (Laboratory experiments)

KISS, Hubert János and KOVARIK, Jaromir

8:30-9:00 – Registration

9:00-9:10 – Opening statements/welcome (Daniel Horn, CERS HAS)

9:10-10:40 – Laboratory experiments session 1

- Introduction to experiments, history, how to carry out an experiment

10:40-11:00 – Coffee break

11:00-12:30 – Laboratory experiments session 2

- Some classic and some labour experiments

12:30-13:30 – Lunch break

13:30-15:00 – Laboratory experiments session 3

- Introduction to z-tree

15:00-15:30 – Coffee break

15:30-17:00 – Laboratory experiments session 4

- Some more advanced stuff on z-tree

17:00- – Reception

October 17. Tuesday (Machine learning)

MASCI, Chiara and SCHILTZ, Fritz

9:00-10:30 – Machine learning session 1

- Historical background of the importance of Machine Learning in Education
- Advantages/disadvantages of Machine Learning approach respect to classical statistical techniques

10:30-11:00 – Coffee break

11:00-12:30 – Machine learning session 2

- Introduction to Regression and Classification trees
 - 1st R-lab session: practice in class (Application to PISA 2015 data)
- 12:30-13:30 – Lunch break
- 13:30-15:00 – Machine learning session 3
- Introduction to Bagging, Random Forest, Boosting
- 15:00-15:30 – Coffee break
- 15:30-17:00 – Machine learning session 4
- 2nd R-lab session: practice in class (Application to PISA 2015 data)

October 18. Wednesday (Data Visualization)

BÁTORFY, Attila

- 9:00-10:10 – Data visualization session 1
Short introduction into the theory and history of the visualisation of quantitative (and qualitative) information. Why we visualise data? Historical background. Data design. Anatomy of data visualisation.
- 10:10-10:30 – Coffee break
- 10:30-11:40 – Data visualization session 2
Simple data visualisation in Tableau.
- 11:40-12:00 – Break
- 12:00-13:10 – Data visualization session 3
Complex data visualisation in Tableau.
- 13:10-14:00 – Lunch break

Website

<http://www.edenproject.eu/summer-school-on-applied-techniques/>