

RECSM Summer School: Machine Learning for Social Sciences

Session 1.1:
Course Overview

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Session 1

Session 1

No.	Topic
1.1	Introductions and course overview
1.2	Introduction to machine learning
1.3	Supervised learning and model accuracy
<i>Break</i>	
1.4	Shrinkage methods I: ridge regression
1.5	Shrinkage methods II: the lasso
1.6	Application of ridge regression and the lasso

Session 2

Session 2

No.	Topic
2.1	Introduction to classification and regression trees
2.2	Advantages and disadvantages of trees
2.3	Bagging, random forests
<i>Break</i>	
2.4	Boosting
2.5	Application I: classification and regression trees
2.6	Application II: bagging, random forests, boosting

Session 3

Session 3

No.	Topic
3.1	Introduction to unsupervised learning
3.2	Principal components analysis (PCA)
3.3	<i>K</i> -means clustering
<i>Break</i>	
3.4	Hierarchical clustering
3.5	Application I: PCA
3.6	Application II: clustering methods

General Information

General Information

- Please feel free to stop and ask questions at any time.
- All course materials are available at:
<http://retowuest.net/recsm-2019/>