

# Machine Learning

**MAMME**

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# Half-term project (I)

## **Assessment**

20 % - technical/theoretical correctness

20 % - methodological correctness

20 % - amount & quality of experiments

10 % - originality of work

20 % - discussion & conclusions

10 % - introduction & previous work

# Half-term project (II)

## Possibilities

- A) Apply an **standard kernel method** (SVM, kRR, kPCA, ...) to a **specific problem** of your interest, with comparison to other approaches.

The focus is on the **application**

- B) Choose and apply an algorithm/technique that has already been **kernelized** (except the SVM), study it [program it], and apply it to one or more [benchmark] problem(s); comparison to the standard version.

The focus is on the **algorithm/technique**

- C) Study a **non-standard kernel** (not for  $\mathbb{R}^d$ ), and apply it to a specific problem of your interest, with one or more kernel method(s).

The focus is on the **kernel function**

# Half-term project (III)

## Format

- Preferably groups of **two** people (singles and trios accepted upon explicit permission)

- Written document (pdf preferred), recommended size 8-15 pages

Structured according to scientific standards:

1. Title, Name(s), Abstract, Introduction, Previous work
2. Own work: Theory, Experiments, Discussion
3. Conclusions, Self-assessment and Future work

- R code (.r, .Rmd) delivered as separate file(s)

# Half-term project (IV)

## Important information

- Please do not choose the analysis of large or very large datasets unless you make sure you have the required computational power
- Purely theoretical or purely experimental works are accepted
- Review or Tutorial works are accepted, under some conditions

**Delivery date:** Preferably no later than **June 12, 2021**

**Absolute deadline:** **June 15, 2021**