# Kernel-Based Learning & Multivariate Modeling

### **MIRI Master**

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# Half-term project (I)

### **Assessment**

20 % - technical 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 for CRND) to a **specific problem** of your interest; 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 **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**

#### What to deliver?

- Written document (pdf preferred), recommended size 8-12 pages
- Structured according to scientific standards:
  - 1. Title, Abstract, Introduction, Previous work
  - 2. Own work: theory, experiments, discussion
  - 3. Conclusions, critical assessment and future work
- R code in a separate file

When to deliver? No later than December 9, 2019