# **Advanced Machine Learning**

Spring 2019

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To know, read; to learn, write; to master, teach.

(Hindu proverb)

# **Logistics**

#### This course is given by:

- Prof. Pierre Geurts (p.geurts@uliege.be)
- Prof. Gilles Louppe (g.louppe@uliege.be)
- Researchers from the department
- ... and you!





#### **Lectures**

- This course is organized as a journal club.
- Reading and presentation of recent machine learning research papers.
- Every week, one of us will:
  - select a research paper,
  - introduce the necessary background,
  - o present the paper,
  - discuss and criticize its content.
- Goal: training for research and development in machine learning.

### **Materials**

Papers and slides are available at github.com/glouppe/info8004-advanced-machine-learning.

- In HTML and in PDFs.
- Posted online the day before the lesson (hopefully).

#### **Outline**

(Tentative and subject to change!)

- Lecture 1: Pierre Geurts
- Lecture 2: Gilles Louppe
- Lecture 3: Antonio Sutera, Van Anh Huynh-Thu
- Lecture 4: Pierre Geurts
- Lecture 5: Gilles Louppe
- Lecture 6: Romain Mormont, Joeri Hermans
- Lecture 7: Matthia Sabatelli, Raphael Fontenau
- Lecture 8: Student presentations 1
- Lecture 9: Student presentations 2
- Lecture 10: Student presentations 3

# Reading and presentation assignment

- Read a selected machine learning paper.
- Prepare a 40-minute lecture, covering the necessary background and discussing the paper.
- Short summary report.

More details to be announced later.

## **Evaluation**

- Exam (60%)
- Reading and presentation assignment (40%)

Let's start!