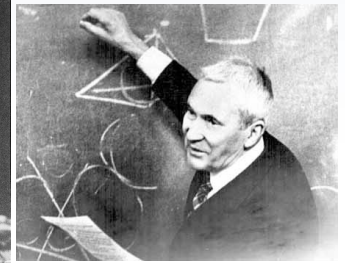
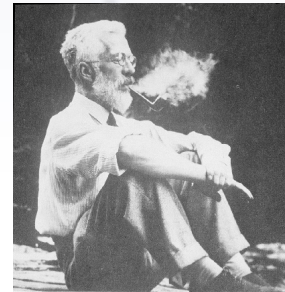
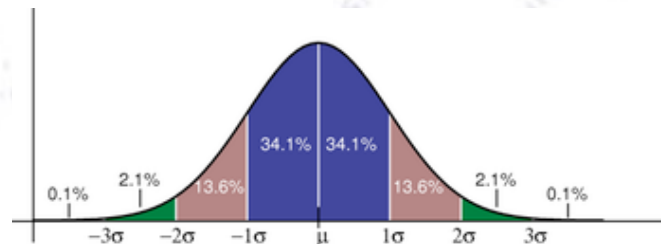


# Applied ML

## Final Project Presentations & Schedule



Troels C. Petersen (NBI)



*"Statistics is merely a quantisation of common sense - Machine Learning is a sharpening of it!"*

# Your presentations

**Each presentation is allotted  $8 + 2N_{\text{group}}$  minutes, sharp!**

In order to use this time best, please do one or more rehearsals, and also use these for “sharpening” your slides. You should try to share, who gives the presentation, and the full group should be present for questions.

Make sure that you introduce the problem and the associated data. Also describe your process, discuss your choice of methods, and recount your problems/optimisation/CPU or GPU-usage/etc. And then state your results!

The final projects will be evaluated based on the following criteria:

- Complexity of problem and depth of solution (incl. appendix)
- Choice of methods and arguments behind
- ML performance and own evaluation of it
- Clarity of presentation and how much the class will learn from presentation
- Implementation, technical details, optimisation, etc. (your appendix)
- Ability to evaluate ML usage (your evaluations of other presentations)

# Your presentations

**Each presentation is allotted  $8 + 2N_{\text{group}}$  minutes, sharp!**

Your **slides, statement, and zipped code** should be uploaded to [eksamen.ku.dk](https://eksamen.ku.dk) by Tuesday the 9th of June 20:00, and I will then put your slides on the course webpage, for all to see (naming: **“FinalProject\_GroupMembersFirstNames.pdf”**). It is OK, if you do (minor) updates in your presentation, for the actual exam. Please send me your latest version to me in PDF before presenting.

Remember to divide your slides into two parts:

- Presentation, which is what you will present during you presentation time.
- Appendix, which documents your work.

**I will start 9:00** with a short introduction. There will also be a Zoom link for external participation. We will **not** record your presentations, but base our evaluation on your presentation and your slides **including appendix**.

You will all be asked to evaluate each others projects, as a part of the course.

*These evaluations will **not** be used for our grading of the projects.*

# Your presentations

A few things to consider to make your presentation clear (read: understandable) to the audience could be:

- Make sure you present the **context, motivation, and goal** of the project.
- **Present the data in detail:** Amount, features, relations, labels, etc.
- Possibly give an **overview of methods** used, for audience to have an outline.
- **Recount the challenges** (for all to learn!) and how you dealt with them.
- **Show/compare performance clearly**, and discuss from these.
- Summarise your project in a **few clear sentences and numbers**.
- Perhaps tell us, what you would have done with more time, data, GPU, etc.

Regarding attendance and your evaluation of the other project:

We strongly urge you to attend as much as you can (for your own learning).

However, all projects will be posted ahead of the exam on the course webpage:

*Thus, you can evaluate all the projects from anywhere at anytime until Thursday night.*

The link to use for your evaluations is:

[Wednesday final project student evaluations](#)

[Thursday final project student evaluations](#)

### Wednesday the 10th of June

Start time:	Member Names:	Topic / Title:	Time:	Group:	Notes
9:00	Troels	Introductions	10		
9:10	Sigrid, Konstantinos, Lukas	Anomaly detection in astrophysical transient surveys	14	3	Wed 10
9:27	Silas, Amalie, Rasmus, Frida, Hugo	Finding high temperature superconductors using ML	18	5	Wed 10
9:48	Zeyuan, Guanran, Jeppe, Mads	Short term probability direction prediction	16	23	Wed 10
10:07	Patrick, Kasper, Hugo, David	NA	16	37	Wed 10
10:26	Break (20 min.)				
10:46	Aske, Konrad, Philip, Sagar	Beyond the Pit Wall: Machine Learning in Formula 1	16	14	Wed 10
11:05	Freja, Anika, Anna, Christian	Car Insurance Fraud	16	15	Wed 10
11:24	Elena, Giulia, Rafael, Isak	Using ML to predict and understand AMOC circulation strength	16	21	Wed 10
11:43	Victoria, Luca, Emma, Nicklas	Data preprocessing and fire insurance estimation: Taking it a step further with machine learning	16	20	Wed 10
12:02	Lunch Break (1 hour)				
13:02	Mikkel, Sofie, Jakob, Kasper, Tobias	Football data analysis	18	9	Wed 10
13:20	Janik, Holger, Marc	Outlier detection in the BedMap dataset	14	12	
13:20	Lydia, Tommaso, Martina	Unsupervised Graph Neural Networks for Bitcoin Fraud Detection	14	29	
13:34	Matthew, Thomas, Salvador, Tiago	Optical Character Recognition for Japanese Kanji	16	30	Wed 10
13:53	Break (20 min.)				
14:13	Villads, Elias, Daniel, Aidan	Guess the Elo, and More: Applying Machine Learning to Characterize Chess Players and Coaches	16	31	Wed 10
14:32	Malthe, Lea, Bastian	Determining Greenlandic ice sheet volume from radar measurements and satellite images	14	2	Wed 10
14:49	Amanda, Barbara, Oliver, Rasmus	FoCal H	16	36	Wed 10
15:08	Karl, Emil, Filip	Something Cool	14	27	
15:25	Break (20 min.)				
15:45	Oliver, Mads, Kristoffer, Jacob, Niklas	ML in Insurance	18	13	Wed 10
16:03	Rasmus, Anna-Ida, Isabel	Airplane turbulence from wind data	14	35	Wed 10
16:20	Anne, Liva, Mikas	Claudio 2: Electric Boogaloo - Audio Recognition with CNN's	14	18	Wed 10
16:37	Estimated end of Wednesday presentations				

### Thursday the 11th of June

Start time:	Member Names:	Topic / Title:	Time:	Group:	Notes
9:00	Troels	Introductions	10		
9:10	Rose, Zacharias, Kristian	Infer crystal properties of solid state materials using ML	14	1	Thu 11
9:27	Leonora, Thor, Nikolaj, Oskar, Emma	Muon Energy Reconstruction in IceCube via Regression	18	25	Thu 11
9:48	Patrick, Jacob, Nikolaj, Martin	Classification of AI generated images	16	26	
10:07	Ulrik, Christopher, Jakob, Ludvig	Scrandle Predictor	16	6	
10:26	Break (20 min.)				
10:46	August, Catrine, Emma	This Could Be Anywhere	14	22	
11:03	Sebastian, Asger, Sophus, Nicolai, Peter	Turbulence Level in Airport Operations by FORCE Technology	18	7	
11:24	Emma, Matias, Jonas	Speeches and written texts	14	28	
11:41	Debjani, Maryam, Ingrid, Urszula	Analyzing Single Cell Sequencing Data of Immunological Cells in Covid patients	16	24	
12:00	Lunch Break (60 min.)				
13:00	Jona, Victoria, David, Natalie	NA	16	11	
13:19	Peter, Vasileios, Aikaterini, Carla	Predicting the Past	16	10	
13:38	Pelle, Sebastian, Nicholas, Søren, Christian	Football dream team using ML	18	19	
13:59	Jacob, Thomas, Christian, Benjamin, Magnus	NN analysis of Danish airplane photos & Chess game evaluation	18	8	
14:20	Break (20 min.)				
14:40	Milan, Mathias	Neuro ML	12	16	
14:55	Bastian, Frida, Julie, Thea	Claudio - Audio Recognition with CNN's	16	17	
15:14	Sebastian, Louie, Alfred	Ball player evaluation	14	33	Thu 11
15:31	Ziyan, Chirantha	Predicting Extreme Price Events in Electricity Markets Using Ensemble Learning	12	34	
15:46	Estimated end of Thursday public presentations				

# Exam location

Wednesday & Thursday:

~~HCO~~, Aud. 2

