

# Uncertainty Prediction

4/6/2025

**3/3 Points**

Försök 2



Feedback från granskning

3/27/2025

Poäng för försök 2:

3/3



Visa feedback

Anonym bedömning: **nej****Obegränsat antal försök tillåts**

4/7/2025

**Information**

Your task is to implement a neural network that predicts the temperature, gravity, and metallicity of stars **AND the (Gaussian) uncertainties of your predictions** using the negative log-likelihood loss function. Use the *Astronomy dataset* consisting of light spectra that you used in the previous exercise. See the previous exercise [Astronomy CNN with PyTorch \(https://uppsala.instructure.com/courses/102453/assignments/315724\)](https://uppsala.instructure.com/courses/102453/assignments/315724) on how to obtain and normalize the data.

Quantify how well you were able to determine the uncertainties.

Remember always to include:

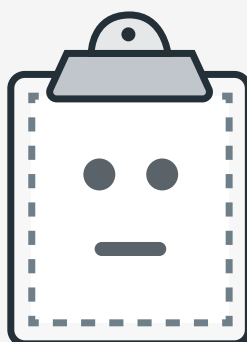
- A **written summary** (0.5–1 A4 page) covering (submitted either as PDF or directly as text):
  - What you did and how
  - What results you obtained
  - What challenges you encountered and what could be improved
- A **PDF (or similar format)** with all **result plots**, each with a short explanation
- Your **code**, preferably as a link (e.g., GitHub, Google Colab, etc.) so we can view it easily.

**Filnamn****Storlek**[Exercise\\_...\(3\).ipynb](#)

10,3 MB

[Exercise\\_...n \(2\).pdf](#)

186 kB

**Förhandsvisning ej tillgänglig**

Exercise\_2\_Uncertainty\_Prediction (3).ipynb

↓ [Ladda ner](#)

([https://uppsala.instructure.com/files/8342123/download?download\\_frd=1&verifier=XFKuyGdTk4MtqWqWVZxgHaTqYWzs1arq3rniOloI](https://uppsala.instructure.com/files/8342123/download?download_frd=1&verifier=XFKuyGdTk4MtqWqWVZxgHaTqYWzs1arq3rniOloI))



(<https://uppsala.instructure.com/courses/102453/modules/items/1334989>)



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