

## An introduction to Bayesian neural networks and uncertainty quantification in neural networks

*Thursday, 9 March 2023 10:00 (1 hour)*

Over the past few years, many advances in the field of Deep Learning (DL) have been achieved and nowadays modern DL models are starting to be deployed in our everyday life. However, for many safety-critical applications, as long as scientific research fields, the quantification of the uncertainty of DL model predictions plays a crucial role.

In this lecture, I will introduce the basics of Bayesian Neural Networks, how they can tackle the problem of estimating model uncertainty, and the most common techniques for generalizing this method to deep neural networks.

### **Attended school**

### **Exercise hours**

### **Lecture hours**

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**Track Classification:** Data science and machine learning