

## Check Points: Neural Systems

If you are not able to answer some of these questions, first check the slides and lecture notes. If you still do not understand the question, send me an e-mail at [Dario.Floreato@epfl.ch](mailto:Dario.Floreato@epfl.ch)

- Describe the delta rule
- What is an error function?
- Why is linear separability important?
- What is a multi-layer perceptron (MLP)?
- What neural output functions should we use for hidden and output units of MLP?
- What is Back-Propagation of error?
- Describe the main steps of activating the network and modifying the weights
- What is learning rate and momentum? How can we prevent over-fitting?
- Describe different architectures for processing time-series data
- What type of temporal encoding does NetTalk use?
- Does the network for odor discrimination use local or distributed encoding of the input?
- Describe Deep Learning architectures
- What is an Autoencoder?
- What modifications are necessary for Autoencoders in Deep Learning?
- Describe different types of neural hardware