



## How Adaptive are Neural Networks?

(Deep) Neural Networks are capable of learning some amazing things. Unfortunately, our understanding is still limited and we often have to rely on experience, best practices and heuristics when designing and using Neural Networks.

In this thesis, we would like to get a better understanding of how adaptive Neural Networks are. How well can a Neural Network adapt when we change the learning-task slightly? Is it better to retrain a new one, or is there some form of transfer learning? How fast is the adaptation? What happens if we go back to the original learning-task, and so on. If this sounds interesting to you, do not hesitate to contact us so that we can exchange ideas.



**Requirements:** Interest in and willingness to study Machine Learning and Deep Learning. There will be weekly meetings to discuss progress and open questions.

**Interested? Please contact us for more details!**

### Contacts

- Gino Brunner: [gino.brunner@tik.ee.ethz.ch](mailto:gino.brunner@tik.ee.ethz.ch), ETZ G63
- Yuyi Wang: [yuyi.wang@tik.ee.ethz.ch](mailto:yuyi.wang@tik.ee.ethz.ch), ETZ 94