



Prof. R. Wattenhofer

Music Theory Meets Deep Learning 2.0

Deep Neural Networks have been successful in many areas, such as image recognition. When it comes to generating good sounding music however, there have been surprisingly few results. Recently, the pace has picked up a bit, and some nice-sounding samples have come out of Neural Networks.

The area is still in its infancy though, and we think this is the perfect time to try something ourselves. For this particular thesis, we want to use Music Theory as prior knowledge to structure Deep Neural Networks to produce various kinds of music. We have already done work on this¹ and we would like to continue improving our system. You could start with existing code as basis, or implement something from scratch if you come up with a completely new approach. If this sounds interesting to you, do not hesitate to contact us, so that we can have a chat.

Requirements: Knowledge of Music Theory and Deep Learning. You should be able to work independently and come up with your own ideas. There will be weekly meetings with your supervisors to discuss progress and open questions.

Interested? Please contact us for more details!

Contacts

- Gino Brunner: gino.brunner@ethz.ch, ETZ G63
- Yuyi Wang: yuyi.wang@ethz.ch, ETZ 94



¹<https://www.youtube.com/channel/UCQbE9vfbYycK4DZpHoZKcSw>