Learning Contract for Master's Thesis

This study contract defines the requirements for the acquisition of credit points for the master's thesis.

Part I: Agreement

Before to the start of the master's thesis, two copies of this agreement must be signed by the assessor, the student and the head of the teaching committee (Unterrichtskommission). One copy will be kept by the assessor (or the Academic Office of the degree program (Studiengangsekretariat)), the second one will remain with the student.

Student: Erdem Koca

Student ID (Matrikelnr.): 2020 062 451

Degree program: Master Computer Science 16/21

Working title of thesis:

Lasso Regression with Neural Network-Based Nonlinear Corrections

Short description of content:

The goal is to develop and implement a Machine Learning model that integrates classical sparse regression (in the style of the "lasso") and a highly expressive Neural Network. The combined model should overcome the limitations of the linear lasso model while maintaining model interpretability.

Start date: 20.3.2025   End date: 19.9.2025

Student: Erdem Koca _____

Assessor: Volker Roth _____

Second assessor [1,2] : Shijian Xu _____

Biology: if necessary, date of approval by GLV Biozentrum: _____

Number of CP: 30

Signatures:

Student:	Assessor:	Second assessor [1,2]:	Head of Teaching Committee:

Basel, 20.03.2025

Basel, 20.03.2025

Basel,

Basel,

Part II: Assessment

☐ Confirmation that the Master's thesis includes the statement on scientific integrity

☐ Reports for Master's thesis are available

Grade (half or full grade): _____
(grading scale: 6.0 = excellent, 5.5 = very good, 5.0 = good, 4.5 = satisfactory, 4.0 = sufficient, 3.5 to 1.5 = not sufficient)

Signature(s) for assessment:

Assessor: Second assessor [1,2]:

Basel,   Basel,

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[1] Second assessor mandatory for: Chemistry, Nanosciences, PNA, Physics

[2] Biology only: Second assessor mandatory if grade 6 or an insufficient grade or "Biozentrum"-external assesors

After the assessment:
Please hand in the completed form, including a copy of the title page of the master's thesis, to:
Physics: forward this form to the Office of the Dean of Studies (Studiendekanat) of the Faculty of Science
all others: forward this form to the Academic Office of the degree program (Studiengangsekretariat)