



# Regulations for the Doctoral Program Theoretical Astrophysics and Cosmology

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## I. General Information

These regulations are based on the Ordinance for Obtaining a Doctoral Degree and the Doctoral Program Regulations Part A at the MNF. They apply for all PhD students in Theoretical Astrophysics and Cosmology at the MNF. Further information on the program can be found on the website of the Center for Theoretical Astrophysics and Cosmology at [www.ctac.uzh.ch](http://www.ctac.uzh.ch).

## II. Admission

An admissions committee is formed from the faculty members participating in the program. The requirements for admission are:

1. A master's degree in Physics, Mathematics or Computational Science at a Swiss university, ETHZ, EPFL or an equivalent degree is required. The director of the doctoral program is responsible for the academic evaluation of master's degrees earned at institutes other than UZH, ETHZ or EPFL. In addition, the research group leader may request the completion of specific courses as an additional requirement.
2. A successful interview with a research group leader with the right to confer PhDs. At least two members of the admission committee must be present.
3. A positive decision by a research group leader of the Institute for Computational Science based on the resources available.

## III. Structure of the Doctoral Program

### 1. Curricular Portion

The doctoral committee determines each PhD student's curriculum individually. Their curriculum should focus on students' specific area of research, while also ensuring a solid general education in Computational Science. Students must earn a total of at least 12 ECTS Credits. Students and their supervisors jointly select suitable courses.

The following rules apply to accrediting seminars, participation in conventions and summer schools:

- Students must attend at least one convention or summer school on a scientific topic related to their dissertation per year. They will receive one ECTS Credit per week of participation and an additional point for a personal contribution (presentation or poster).
- The annual group doctoral seminar is obligatory for students (1 ECTS Credit).
- Regular participation in the weekly journal club in Astrophysics (1 ECTS Credit).
- Courses at UZH are worth the number of ECTS Credits listed in the course catalogue. Special block courses such as the Schroedinger Lectures are worth 1 ECTS credit.

### 2. Teaching Assistance

Doctoral students must participate in teaching every semester of their doctoral studies. The practical trainings coordinator at the Institute for Theoretical Astrophysics and Cosmology is responsible for the assignments. The teaching load every semester

averages 6 work hours per week during the lecture period. During the last semester before submitting their dissertation, PhD students can ask to be dispensed from their teaching requirements. External PhD students (who have members of the doctoral program as advisors, but are not hired there) generally only complete half the teaching load.

3. Doctoral Agreement

The doctoral agreement should be completed using the template obtainable from the program coordinator.

4. Doctoral Committee

At least one permanent faculty member must be part of the doctoral committee. The doctoral committee should be annually informed on the project's progress and should, if necessary, modify the doctoral agreement.

#### **IV. Doctoral Degree**

1. When students apply for their PhD defense at the MNF Student Affairs Office, they should also submit two bound copies of their dissertation to the program coordinator.

2. Circulation Round

The circulation round consists of at least four faculty members of the Theoretical Astrophysics and Cosmology program in addition to the directly responsible person. Other faculty members (Mathematics, Chemistry, Physics, etc.) may be included if called for by the subject matter. The circulation will be arranged by the program coordinator.

3. Colloquium

The colloquium involves a 50 minutes lecture, which is open to the public, and a subsequent 20 minute closed disputation on questions in the dissertation's subject area. The committee members as well as one additional faculty member must be present at the disputation. The reviewers and the direct PhD advisor will be invited to the disputation, even if they are neither members of the faculty nor the doctoral committee.