



International Master
Advanced Methods
in Particle Physics

Internships and Master's projects

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How to choose a Master's project

- The third semester offers plenty of opportunities to get in touch with researchers, universities and institutions for potential internship projects.
- Once a topic is chosen, it is important to define a **supervisor** from the institution in which you will conduct the research. Please also discuss the organization with him or her, e.g. travel to the institution, visa requirements, financial support, etc.
- We offer travel support for students without an EMJM stipend;
 - Max. 3000 Euro for non-EU projects
 - Max. 1500 Euro for EU projects

Roles

- Each projects needs a **supervisor**, i.e. an experienced local person (in most cases a professor or staff member)
- The supervisor should act as the **first referee**
- The **second referee** should come from one of the three universities (Bologna, Clermont, Dortmund)

Admission to the Master's project

- You are obliged to fill out an **admission form** for the Master's thesis. It is available on request by e-mail from the examination office (pruefungsverwaltung-physik@tu-dortmund.de). The requirements for admission are
 - the collection of at least 84 CP;
 - the definition of a thesis project and a supervisor / first referee;
 - the suggestion of a second referee
- It is also necessary to sign a **supervision agreement** with your supervisor. The supervision agreement has to be sent to the head of the examination board (currently Kevin Kröninger).

Admission to the Master's project

- You will have to choose one of the follow elective modules on the admission form, depending on where you conduct the Master's project:
 - Preparation for the final examination → research conducted at any French, Italian or German university
 - Preparation abroad for the final examination → research conducted at any university outside France, Italy and Germany
 - Internship in preparation for the final examination → internship conducted at any company or research institution in Italy, France or Germany. Research institution are for example DESY, Max Planck Institute for Physics, INFN, IN2P3, etc., i.e. any lab that is independent from the universities
 - Internship abroad in preparation for the final examination → internship conducted at any company or research institution outside France, Italy and Germany, e.g. TRIUMF in Canada, BNL in the US. etc.

Master's thesis

- The Master's project will have a duration of six months (maximum). It will conclude with a written Master's thesis which has to be submitted within the duration of the Master's project.
- Upon justified application, the examination board can grant an extension for the completion of the Master's thesis of up to four weeks.
- In case the Master's thesis has not been successfully completed, it can only be repeated once and with a new topic. However, it is possible to change the topic of the Master's thesis within the first two weeks.

Master's thesis

- The thesis should have a length of approximately 60 pages. Additional appendices are possible.
- The thesis must be submitted in via the online portal ExaBase at TU Dortmund University:
<https://webapps.itmc.tu-dortmund.de/webapps/prod/dev/exabase/>

Final examination

- The primary session of final exams will take place at the end of the summer term (before September 30th). It will be held in presence, usually at one of the three universities. In exceptional cases, a participation via ZOOM is possible.
- A second final session will be offered via ZOOM early in December for those who miss the primary session. Be aware that you will have to enroll for an additional semester and also have to pay fees for this additional semester. The same holds true if you still have to collect credits for other modules.
- The final examination comprises of a presentation about the internship (about 20 minutes) and a discussion (about 15 minutes). The examination will be conducted by a jury of teachers from all three universities. The grades will be announced after all examinations are completed.

Final examination

- The Master's thesis has to be submitted at least two weeks prior to the final examination.
- In order to participate in the final examination at the end of the summer term, it is advisable to start the Master's project in February or at the beginning of March at the latest. You will have to hand in your thesis on September 15th at the latest.

Grading

- The Master's thesis will be graded by the two referees. The grade of the Master's thesis is formed from the arithmetic mean of the two individual grades (see Section 22 of the Examination Regulations). The thesis will be counted with 18 CP
- The final examination will be graded by the jury. It will be counted with 12 CP.