

# Your PhD in physics at TUM

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# Ph.D. at TUM / Physics Department

Two elements make up your Ph.D. program

- Supervision agreement with your Doktormutter / Doktorvater (supervisor)
  - ⇒ **individual, independent research** embedded in the research groups of the department
- Qualification program at Graduate Center Physics and TUM Graduate School

time / effort for research



time / effort for qualification program



# Qualification Program

- supervision agreement includes mentor (can be changed during Ph.D. project)
- project plan with detailed plans and milestones
  - find the most suitable form of this together with your supervisor (template available)
  - keep it up-to-date
- requirements:
  - kick-off seminar by TUM GS
  - subject-related training of at least 6 SWS (63 hours)
  - status discussion after two years latest
  - involvement in the academic environment via teaching
  - a peer-reviewed publication or discussion of your work in the international community
- benefits
  - summer/winter schools
  - invitation of speakers
  - internationalization support (travel expenses)
  - proofreading service for scientific publications

# Kick-Off Seminar by TUM GS

- at the start of your Ph.D. project
- **requirement** of the qualification program
- register at

<http://www.gs.tum.de/en/doctoral-candidates/qualification/kick-off-seminar/>

# Subject-Related Training

- requirement of the qualification program is at least 6 SWS (63 hours)
- equivalent to regularly visiting e.g. a group's Journal Club for three semesters
- external courses / seminars / ... may be recognised – decision by your supervisor
- discuss with your supervisor
  - what courses / seminars / ... to take
  - what certificates are required

**Ignore DocGS for this**, see <https://www.ph.tum.de/academics/phd/gs/member/>

At the end of your Ph.D. project (several days before handing in)

- enter all qualification elements at <https://www.ph.tum.de/academics/phd/gs/member/>
- download the PDF report and hand it in (signed by you and your supervisor) at the FGC PH

# Status Discussion

**Requirement** of the qualification program within two years after start

Typically you will have such discussions with your supervisor **far more often!**

Based on

- a public presentation within the university (can be substituted by one at an academic conference),
- a written interim report on the scientific work (can be substituted by an academic paper for publication),
- an updated project plan and
- a counseling session with your mentor.

**Ignore DocGS for this**, see <https://www.ph.tum.de/academics/phd/gs/member/>

- we only need e-mail confirmation by your supervisor to [gs@ph.tum.de](mailto:gs@ph.tum.de) that the status discussion took place and was successful
- there will be an automated e-mail reminder

# Internationalisation

- **Internal candidates** (contract with TUM)
  - up to 1600 € from TUM GS (or 3000 € for more than four weeks)
  - as for all travel expenses regular “Dienstreiseantrag” and “Reisekostenabrechnung” is required
  - use DocGS for this (for the form „reimbursement: international activities“ only)
- **External candidates** (no contract with TUM)
  - apply for internationalisation grant (applicants are ranked by number of publications)
- **All candidates**
  - additional up to 1600 € from FGC PH as long as funding available
  - see FAQ <https://www.ph.tum.de/academics/faq/phd/international/>

**Ignore DocGS** for the inclusion on the certificate:

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# Publication-Based (Cumulative) Dissertation

A publication-based (cumulative) dissertation according to §6 (2) PromO is not common practice in Physics

- faculty would closely investigate for equivalence to a monograph during the „Rundlauf“
- „the dissertation is to demonstrate the candidate’s ability to do independent research work and provide a clear description of the results“ (§6 (1) PromO)
- no advantages over a classic monograph – only additional time and effort

A monograph does not exclude the publication of parts of the scientific results in journals

⇒ this is common practice in Physics

See <https://www.ph.tum.de/academics/faq/phd/cumulative/>



# Further remarks

- Qualification elements uploaded to DocGS will automatically be denied giving the reason  
*„In the FGC PH qualification elements have to be submitted via  
<https://www.ph.tum.de/academics/phd/gs/member/>.“*
- Use your TUMonline e-mail address
  - provided by the Leibniz Supercomputing Center and regularly far better than any other mail server system
  - after your TUM career you can keep the address as a forwarder
- Questions on the Department Graduate Center: [gs@ph.tum.de](mailto:gs@ph.tum.de)
- Questions on DocGS: [docgs@zv.tum.de](mailto:docgs@zv.tum.de)

## Important web pages

- Your Doctorate in Physics at TUM:  
<https://www.ph.tum.de/academics/phd/>
- Qualification program / Graduate Center:  
<https://www.ph.tum.de/academics/phd/gs/>
- FAQ PhD / Internationalization etc.:  
[https://www.ph.tum.de/academics/faq/?tag=FAQ\\_TUPHSSK\\_phd](https://www.ph.tum.de/academics/faq/?tag=FAQ_TUPHSSK_phd)