

Geodesy and Geoinformation Master of Science



Dr.-Ing. Felix Müller (Academic Program Coordination and Study Advice)

Munich, 26.03.2025

Type of Study

Full Time

Standard Duration of Studies

4 (fulltime)

Credits

120 ECTS

Costs

Student Fees: 85,00€

Application Period

Winter semester 01.04 – 31.05

Admission Category

Aptitude Assessment of Master

Start of Degree Program

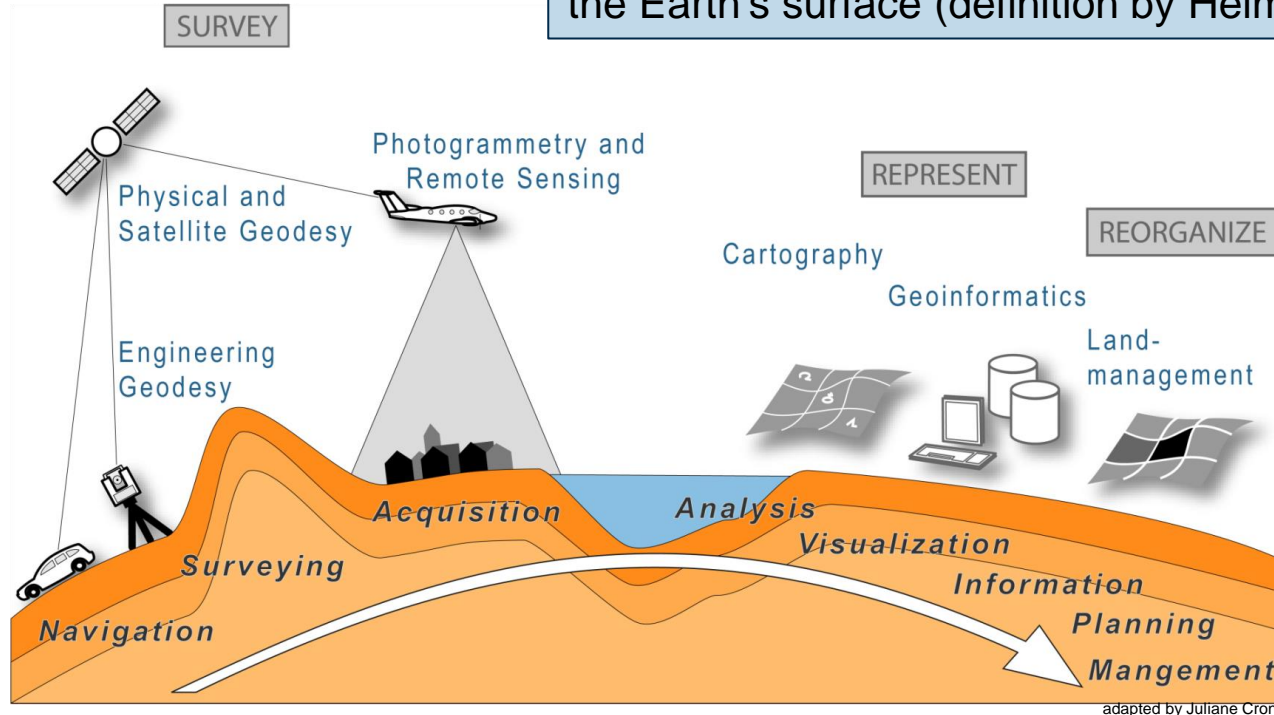
Winter Semester

Required Language Proficiency

English

What are the tasks of Geodesy?

Geodesy is the science of surveying and mapping the Earth's surface (definition by Helmert, 1880).



Possible employers for example:



Deutsches Museum



HM



esri



Geosys-Eber Ingenieure
Sachverständige für Vermessung

Leica
Geosystems



Immobilien

Immobilien Freistaat Bayern



Bundesanstalt für
Immobilienaufgaben

VER SICHER KAMMER BAYERN UNGS



OPED
Mit uns geht's weiter.



BOSCH



Fraunhofer

ROHDE & SCHWARZ
Make ideas real



AIRBUS



esa

SPACEX

- **1. semester**
 - 4 required basic modules + interdisciplinary compulsory module (25 Credits)
 - Elective modules
- **2. to 3. semester**
 - Selection of 3 out of 9 possible study lines
 - Completion of main module and elective modules from the study line (45 Credits)
- **During first three semesters**
 - Selection and completion of elective modules from study lines (not chosen) and/or discipline-specific elective module catalog (20 Credits)
 - Study progress control:
 - Verification of 30 credits from 3rd semester
 - Verification of 60 credits from 4th semester
- **4. semester**
 - Master's thesis 6 months (30 Credits)
- **Mobility window:**
 - Best possible in the 3rd semester

G&G M.Sc. Curriculum

1st Semester (Winter)		2nd Semester (Summer)		3rd Semester (Winter)		4th Semester (Summer)	
ECTS		ECTS		ECTS		ECTS	
Computer Vision and Machine Learning - Basics (PF+LMF)	5	Study Line 1 (required)	5	Study Line 1	5	Master's Thesis	30
Geodetic Engineering and Consulting (LEW, GDS)	5	Study Line 1	5	Study Line 2	5		
Satellite geodesy for Earth System applications (APG, SAT, DGFI)	5	Study Line 2 (required)	5	Study Line 3	5		
Spatial Data Management and Geovisualization (LfK, GIS)	5	Study Line 2	5	Study Line 3	5		
Geodetic Seminar (all chairs)	5	Study Line 3 (required)	5	Elective	5		
Elective	5	Elective	5	Free Elective (Languages, Soft Skills, Transfer Credits etc.)	5		
Sum of Credits (semester)	30	Sum of Credits (semester)	30	Sum of Credits (semester)	30	Sum of Credits (semester)	30
Examinations	6	Examinations	6	Examinations	6	Examinations	6

Study Lines
Navigation and GNSS
Engineering Geodesy
Cartography and Visual Analytics
Physical Geodesy and Earth System
Land Management
Photogrammetry
Space Geodetic Techniques
Geoinformatics
Remote Sensing

Timetable

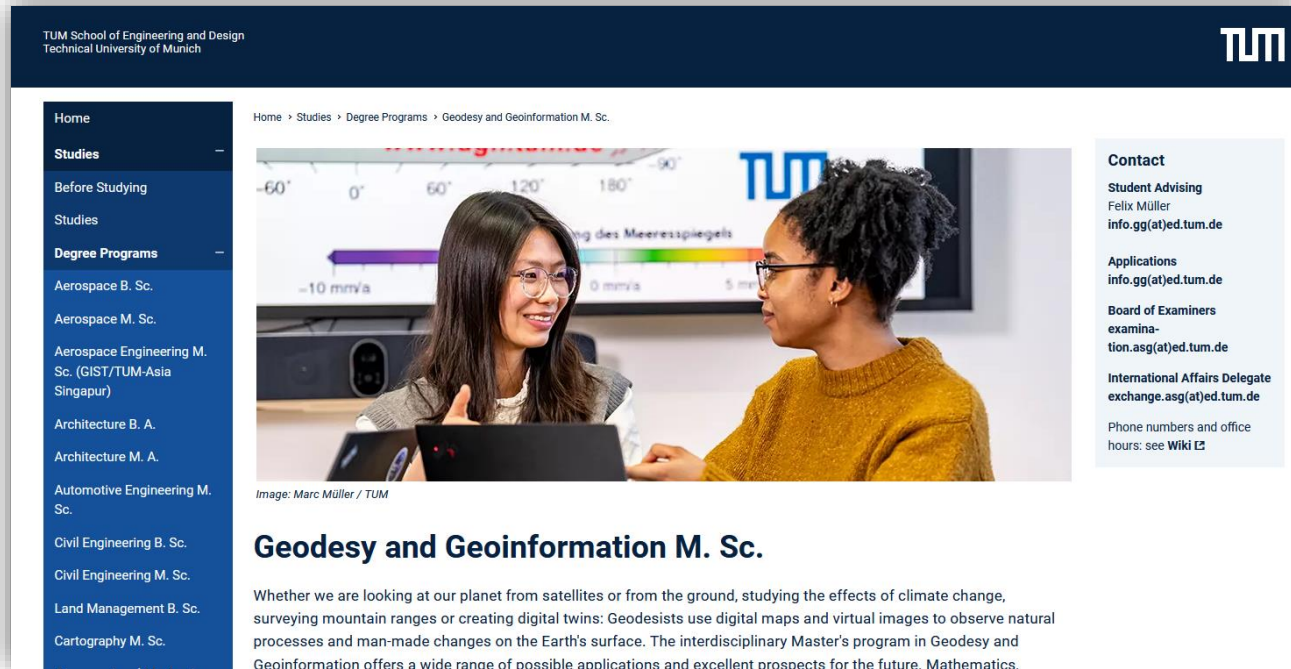
Geodesy and Geoinformation M.Sc. 1. Semester

	Monday	Tuesday (Ottobrunn)	Wednesday	Thursday	Friday
08:00			8:00 - 9:30 Basics of Engineering Geodesy (ED110002) Raum: 0790	08:00 - 09:30 Advanced Methods of Geovisualization (ED110004) Raum: 0790	
09:00		08:30 - 11:15 Principles of Programming (ED110040) 00.012 Seminarraum			
10:00	9:45 - 11:15 Computer Vision 1 (ED110001) Raum: 1778		9:45 - 11:15 Satellite Geodesy for Earth System Applications (ED110003) Raum: 0790	9:45 - 11:15 Satellite Geodesy for Earth System Applications (ED110003) Raum: 2601	09:30 - 12:00 Fundamentals of Spatial Data Management (ED110004) Raum: 3209
11:00					
12:00		12:00 - 14:30 Principles of Programming – Tutorial (ED110040) 01.126 CIP Pool		11:30 - 13:00 Land Tenure and Land Readjustment (ED110002) Raum: 0602	
13:00	13:15 - 14:45 Introduction to Machine Learning (ED110001) Raum: 1778		13:15 - 14:45 Exercise Computer Vision 1 Machine Learning (ED110001) Raum: 1778		
14:00					
15:00	15:00 - 16:30 Distributed Geographic Information Systems and Cloud Computing (ED110004) Raum: 3209, 2605	15:00 - 18:00 Geodetic Seminar (BGU45030) 9377.EG.020 (Magistrale) by appointment	15:00 - 16:30 Advanced Methods of Geovisualization (ED110004) Raum: 0360	15:00 - 18:00 Geodetic Seminar (BGU45030) Raum: 0120	
16:00					
17:00					
18:00					
	Satellite Geodesy Land Management	Engineering Geodesy Photogrammetry and Remote Sensing	Geoinformatic Cartography	Elective Module Geodetic Seminar	

Important web portals

TUM-ED Webpage

- Availability of Academic and Examination Regulations (FPSO)



The screenshot shows the TUM School of Engineering and Design website. The header includes the TUM logo and navigation links. A sidebar on the left lists various degree programs. The main content area features a navigation breadcrumb: Home > Studies > Degree Programs > Geodesy and Geoinformation M. Sc. Below this is a large image of two students looking at a laptop. The image is captioned 'Image: Marc Müller / TUM'. To the right of the image is a 'Contact' section with the following information:

- Contact**
- Student Advising**
Felix Müller
[info.gg\(at\)ed.tum.de](mailto:info.gg(at)ed.tum.de)
- Applications**
[info.gg\(at\)ed.tum.de](mailto:info.gg(at)ed.tum.de)
- Board of Examiners**
[examination.asg\(at\)ed.tum.de](mailto:examination.asg(at)ed.tum.de)
- International Affairs Delegate**
[exchange.asg\(at\)ed.tum.de](mailto:exchange.asg(at)ed.tum.de)
- Phone numbers and office hours: see [Wiki](#)

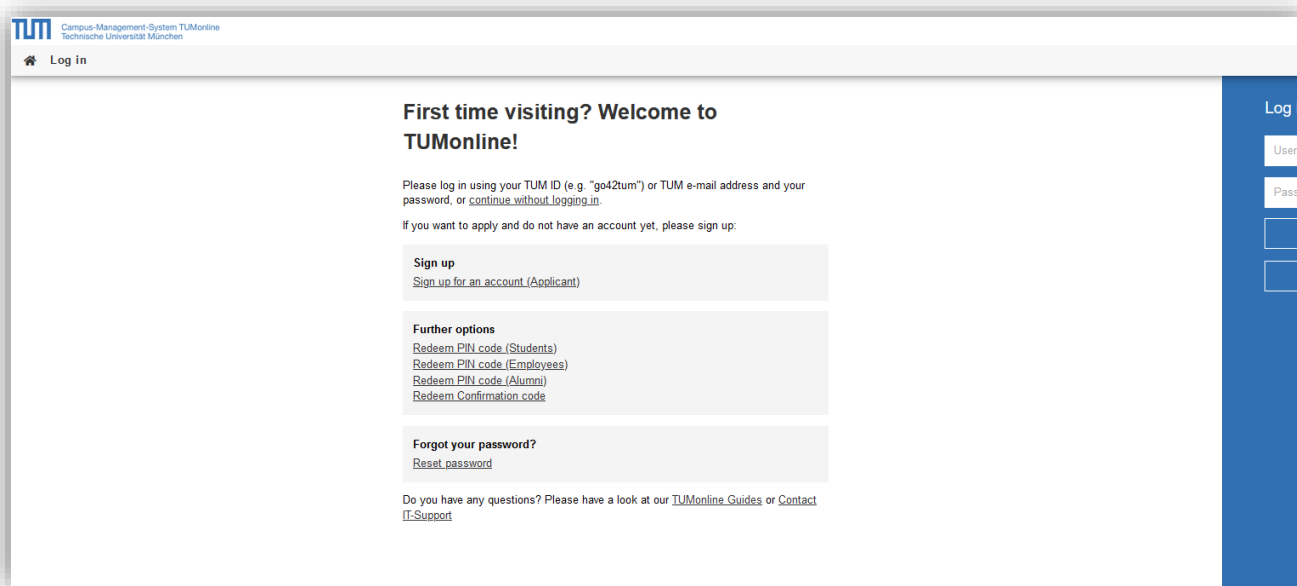
The main heading is **Geodesy and Geoinformation M. Sc.** Below it, the text reads: 'Whether we are looking at our planet from satellites or from the ground, studying the effects of climate change, surveying mountain ranges or creating digital twins: Geodesists use digital maps and virtual images to observe natural processes and man-made changes on the Earth's surface. The interdisciplinary Master's program in Geodesy and Geoinformation offers a wide range of possible applications and excellent prospects for the future. Mathematics.'

<https://www.ed.tum.de/en/ed/studies/degree-programs/geodesy-and-geoinformation-m-sc/>

Important web portals

TUMonline:

- TUM Campus Management System
- <https://campus.tum.de/>



Study costs and financing of a Master's degree program



No tuition fees

Students from Germany or EU / EEA

**Students with German Higher Education
Entrance Qualification (e.g. Abitur)**

**Students with undergraduate Degree (Bachelor)
from a German university**

Students already enrolled in same program

Doctoral students and guest students

Students in Studienkolleg

Tuition fees

**Students from third countries outside the EU / EEA
who newly enroll in a degree program**

Study costs and financing of a Master's degree program



Free of tuition for students from Germany and the European Economic Area (EEA)
or equivalent states as well as from states with corresponding agreements

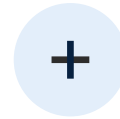


€ 85

Semester fee

approx. **€ 1000**

per month living expenses



Credits and loans

Scholarships

Jobbing



More information: www.tum.de/tuition

Study costs and financing of a Master's degree program



Tuition fees for students from non-EEA countries

from the winter semester 2024/25



€ 6000 for G&G

Tuition fees per semester

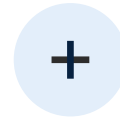
€ 85

Semester fee

approx. **€ 1000**

per month living expenses

More information: www.tum.de/tuition



Credits and loans

Waivers

Scholarships

Jobbing



Study costs and financing of a Master's degree program



Please register for info event (2025-03-28) to receive more information:



TUM Master's Days: Fees and Scholarships

Datum & Uhrzeit	28.März 2025 10:30 AM in Amsterdam, Berlin, Rom, Stockholm, Wien
Beschreibung	A brief overview of semester fees, tuition fees, waivers and scholarship opportunities and how to apply



G&G M.Sc. program – How to apply?



Requirements:

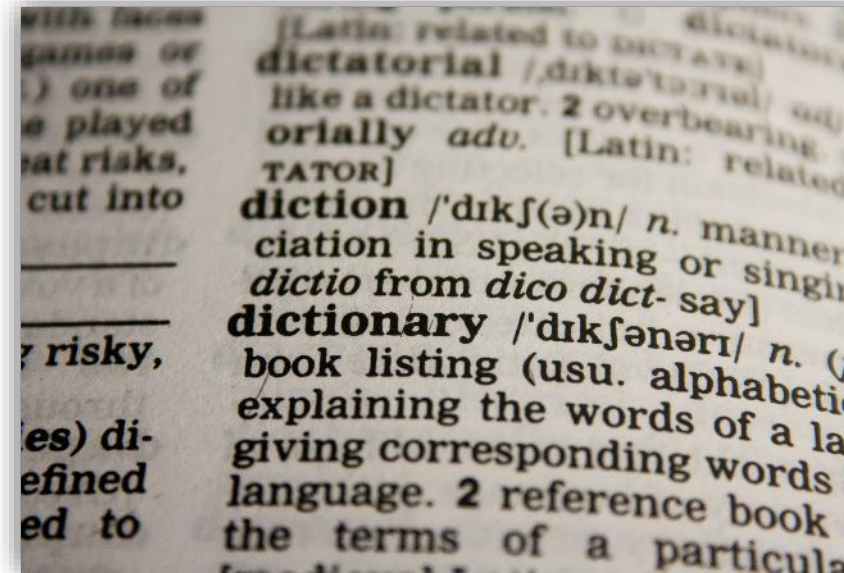
- Bachelor's degree in Geodesy and Geoinformation or a related study program
- English language certificate
- Scientific interests as well as an interest in mathematics, informatics, geometry and physics
- Strong technical understanding

Application via TUMonline (key elements):

- Transcript of Records with modules amounting to at least 120 Credits
 - Tabular CV
 - Letter of motivation
 - Proof of sufficient English language skills
 - Copy of ID card
 - VPD (if applicable) → Please check uni-assist.de
- 2 stage Process: Pre-selection and interview

English language certificate

- Verifications can be:
 - TOEFL (at least 88 points)
 - IELTS (at least 6.5 points)
 - Language qualification at B2 level or at least 3 Credits
 - At least 60 credits in English from the undergraduate degree programme (examinations)
 - Final thesis was written in English
- Further information in FPSO §36 (TUM Wiki)

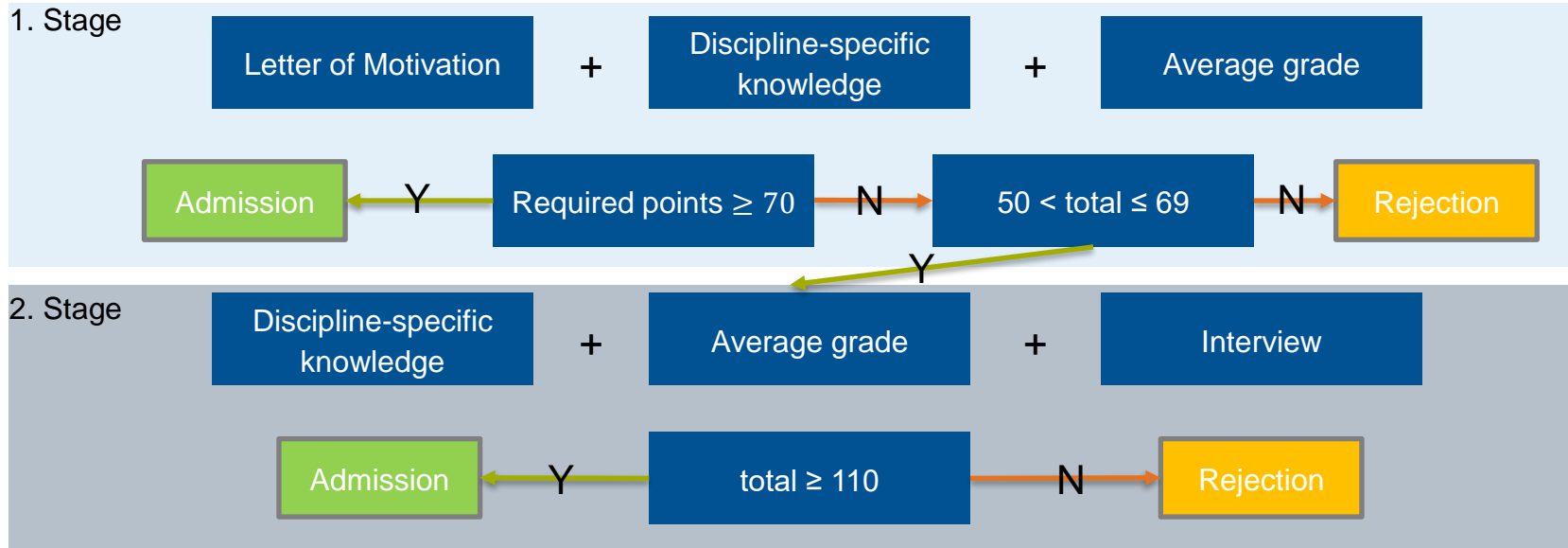


Aptitude assessment

Application period
1 April – 31 May



6 – 8 weeks

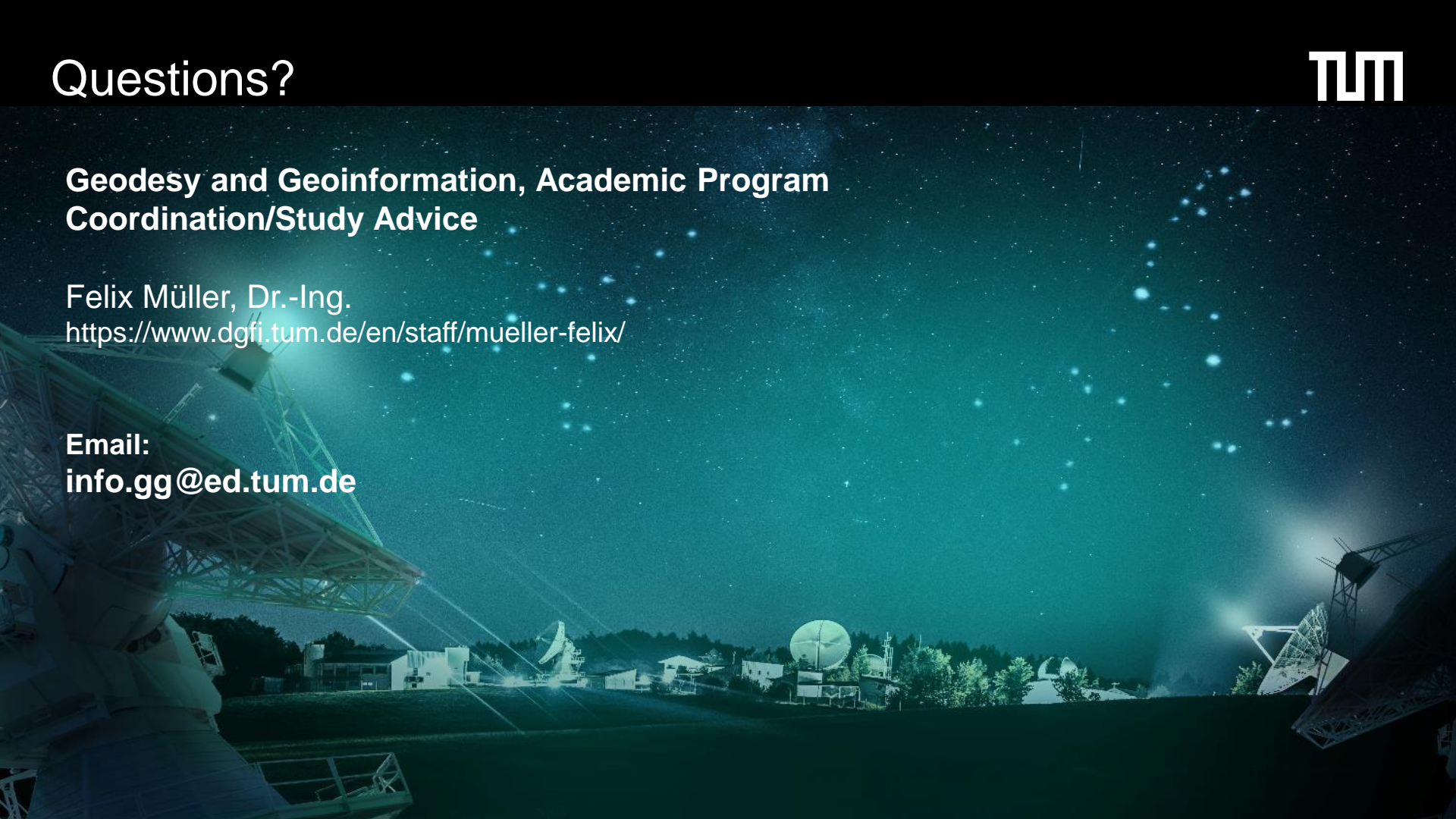


Questions?

Geodesy and Geoinformation, Academic Program Coordination/Study Advice

Felix Müller, Dr.-Ing.
<https://www.dgfi.tum.de/en/staff/mueller-felix/>

Email:
info.gg@ed.tum.de





Questions?