



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



PHYSICS MSc

University of Stuttgart • Stuttgart



Overview

Degree	Master of Science
In cooperation with	Max Planck Institute for Solid State Research
Teaching language	English
Languages	The language of instruction is English. Students who have sufficient German language proficiency can attend courses offered in German.
Full-time / part-time	full-time
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	1 March for the following winter semester
Tuition fees per semester in EUR	Varied
Additional information on tuition fees	EU citizens do not pay tuition, whereas non-EU citizens pay a tuition of 1,500 EUR per semester.
Combined Master's degree / PhD programme	Yes
Joint degree / double degree programme	No
Description/content	PHYSICS is a highly competitive two-year international MSc programme with a strong focus on research. The collaboration of the University of Stuttgart's Department of Physics and the Max Planck Institute for Solid State Research ensures an excellent education. We offer a vibrant learning environment for young physicists from all over the world who strive to become well-equipped for a

career in science.

The Department of Physics at the University of Stuttgart and the Max Planck Institute for Solid State Research are well known for their outstanding scientific research on solid state physics, atom and quantum optics, photonics, soft matter physics, strongly correlated many-body systems, physical modelling, and numerical simulation. PHYSICS students join the institutes for their one-year research projects and become fully integrated in the work of the group.

Course Details

Course organisation

The curriculum is composed of four semesters and divided into two parts. While the first year (first and second semester) consists of lectures, seminars and the laboratory course, the second year (third and fourth semester) provides freedom to fully concentrate on the one-year research project, including the Master's thesis.

Compulsory modules include:

- Advanced Experimental Physics
- Advanced Quantum Theory
- Advanced Condensed Matter Physics
- Advanced Physics Laboratory
- Seminar in Physics
- Advanced Seminar in Physics
- One-year Research Project

Semi-compulsory modules include a choice of lectures on the following topics:

- Advanced Atomic Physics
- Advanced Statistical Physics
- Magnetism
- Low-Dimensional Materials
- Physics of Soft and Biological Matter
- Quantum Field Theory
- Quantum Computing
- Quantum Materials
- Quantum Technologies
- Semiconductor Physics
- Simulation Methods in Physics
- Solid State Spectroscopy
- Solid State Theory
- Superconductivity
- Topological Aspects of Condensed Matter Physics

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A Diploma supplement will be issued

Yes

International elements

- International guest lecturers
- Language training provided
- Projects with partners in Germany and abroad

Special promotion / funding of the programme

- IMPRS

Course-specific, integrated German language courses

Yes

Course-specific, integrated English language courses	No
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Costs / Funding

Tuition fees per semester in EUR	Varied
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Additional information on tuition fees	EU citizens do not pay tuition, whereas non-EU citizens pay a tuition of 1,500 EUR per semester.
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Semester contribution	Approx. 200 EUR per semester
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Costs of living	Living expenses amount to about 940 EUR per month. You will have to demonstrate that you have sufficient finances to cover your living expenses for 12 months. EU citizens may apply for state-guaranteed loans during the time of enrolment. For more information, see the links on our websites.
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Funding opportunities within the university	Yes
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Description of the above-mentioned funding opportunities within the university	Joint Fellowship Programme The Department of Physics at the University of Stuttgart and the International Max Planck Research School for Condensed Matter Science offer funding, mentor-ship and the perspective of a PhD to our most promising applicants. Fellowship recipients have the opportunity to be integrated in one of the research groups located in the Physics Department of the University of Stuttgart or at one of the two Max Planck Institutes from the very beginning of their studies. Undergraduates with excellent results during their BSc studies as well as PHYSICS students with excellent results in the first and second semesters are eligible for the scholarship, which amounts to about 934 EUR per month for one and a half years.
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Requirements / Registration

Academic admission requirements	BSc in Physics: An internationally recognised Bachelor's degree in Physics (or equivalent) is required. The Bachelor's degree has to be equivalent to a BSc degree in Physics obtained at a German university with an above-average grade. OR BSc in related fields: Applicants from related fields can only be considered if they passed sufficient courses in physics with excellent results. Mechanics, electrodynamics and quantum mechanics are mandatory requirements. The admission committee will evaluate the equivalence of your transcript. Please contact us in advance if you are unsure whether you are eligible to apply.
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Language requirements	English proficiency certificate: TOEFL (minimum scores: iBT 80; CBT 213; PBT 550)
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	IELTS (minimum band score 6.0) Cambridge Advanced Certificate in English (CAE) or Cambridge Proficiency in English Certificate (CPE)
Application deadline	1 March for the following winter semester
Submit application to	Please submit your application on the C@MPUS platform! An application manual and further information on admissions is available on the PHYSICS website.

Services

Possibility of finding part-time employment	Please be aware that it may be very challenging to finance your whole studies by working. Non-EU citizens are allowed by law to work for a maximum of 120 days per year. Only students who are employed by the university in one of the institutes or departments (Studentische/Wissenschaftliche Hilfskräfte) are exempt from this regulation, but other restrictions apply. For more detailed information, please consult our websites: International students: financing your studies and working during your studies
Accommodation	Both the campus in Stuttgart-Vaihingen and the campus in the centre of Stuttgart have on-site halls of residence. Dorm rooms (ranging from 240 to 350 EUR per month) are furnished. Some are equipped with a sink, and all have access to kitchen and sanitary facilities, telephone and Internet. From the campus in Stuttgart-Vaihingen, the city of Stuttgart can be reached by suburban railway within ten minutes.
Support for international students and doctoral candidates	• Welcome event • Buddy programme • Tutors • Accompanying programme • Cultural and linguistic preparation • Pick-up service • Specialist counselling • Visa matters • Help with finding accommodation • Support with registration procedures
Supervisor-student ratio	1:15

Our Partners



The Master's programme PHYSICS at the University of Stuttgart

Why join PHYSICS International
Master of Science? Let students from
the programme tell you why!

» more:
[https://www.youtube.com/watch?
v=ITjgWpzP6PM](https://www.youtube.com/watch?v=ITjgWpzP6PM)

University of Stuttgart



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Intelligent systems for a sustainable society

The University of Stuttgart is one of the leading technically oriented universities in Germany with global significance. Located centrally in an economically strong region with vast cultural integration, the university sees itself as a hub of university-based, extramural and industrial research. Furthermore, it takes a role as a leader in research-based teaching, focused on quality and holism. The university is dedicated to researching and strengthening the interfaces between technology, society and culture in an interdisciplinary manner, defined as the "Stuttgart Way". This means the integration of engineering, natural sciences, humanities and social sciences based on the fundamentals of cutting-edge research at a disciplinary level.

Excellent research and teaching

The University of Stuttgart implements innovative concepts in research and teaching in order to provide knowledge and strategies for a meaningful and sustainable development. It focuses on basic research that is both knowledge-oriented and application-related. To facilitate this research, the university is actively part of regional, national and international research networks.

The university is committed to the principle of unity between research and teaching. Students acquire knowledge, expertise and the power of judgement, in accordance with the guidelines of scientific research and awareness. The university fosters fascination for the sciences, supporting its students and junior researchers at all stages of their careers. It promotes independent thinking and provides an environment for responsible action. In doing so, it educates individuals into exceptional experts who think in an integrative and global manner and act responsibly in the sciences, economics and society.

A powerful region

Founded in 1829, at the beginning of the Industrial Age, the University of Stuttgart continues to prepare the way for innovation within an economically and scientifically powerful region and contributes to the economic success and prosperity of our society. This process combines the requirements of a social and cultural change, which allows an early and extensive input of social interests in research and design as well as teaching and further education.

Open-mindedness

The University of Stuttgart stands for open-mindedness, individuality and community spirit. It brings together students that are eager to learn, highly motivated employees, outstanding teachers, and excellent researchers as well as visionary thinkers and inventors. By means of its culture of integration, the university creates and conveys knowledge for shaping the future of our society.



University location

The University of Stuttgart is nestled in one of Europe's most vibrant industrial regions. This fosters many forms of interdisciplinary collaboration – for instance, in numerous Collaborative Research Centres (also known as CRC or sometimes CRC/TRR) and in application-oriented research assignments. The University of Stuttgart sets up a close relationship and a successful transfer of knowledge and technology between its research institutions and business enterprises in the region and beyond. This very practical orientation benefits research and teaching. At the same time, economic players profit from rapid access to new scientific knowledge and contact to experts in their specialised fields. There are numerous possibilities of collaboration for businesses. Furthermore, the university also maintains a close relationship with non-university research institutions such as the Max Planck Society, the Fraunhofer Society, the German Aerospace Center and the German Literature Archive Marbach. Thus, the optimal prerequisites for cutting-edge research at the highest level are all to be found in Stuttgart.

Contact

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🌐 Course website: https://www.f08.uni-stuttgart.de/en/study_programs/physics/

📘 <https://www.facebook.com/Universitaet.Stuttgart>

🐦 https://twitter.com/Uni_Stuttgart

🌐 <https://de.linkedin.com/school/universitaet-stuttgart/>

📷 <https://www.instagram.com/unistuttgart/>

📺 https://www.youtube.com/@Uni_Stuttgart

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International Programmes in Germany - Database

www.daad.de/international-programmes
www.daad.de/sommerkurse

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German Academic Exchange Service
Section K23 – Information on Studying in Germany
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www.daad.de

GATE-Germany

Consortium for International Higher Education Marketing
www.gate-germany.de

Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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