



Mathematical Physics M.Sc.

Application Information

Application period: 1 June - 15 July (winter term) and 1 December - 15 January (summer term)

Semester start: October 1st (winter term) and April 1st (summer term)

Language(s) of instruction: English

Introduction

The Master's program in Mathematical Physics is a joint program of the Department of Mathematics and the Department of Physics at Hamburg University. It is complemented by contributions from leading scientists of the Theoretical Physics Group at DESY, one of the world's leading centers for the investigation of the structure of matter.

The Master's program in Mathematical Physics is a research oriented program geared towards fundamental research at the interface of mathematics and physics. Its participants acquire familiarity with the fundamental concepts of modern theoretical physics as well as proficiency in pure mathematics. Ideally, graduates of the program are able to understand current research in theoretical physics as well as to work actively with advanced mathematical concepts and structures.

Admission Requirements

University Degree

For the Master's program in Mathematical Physics you need to have accomplished a Bachelor's degree in Mathematics or Physics. The content of this degree must be comparable to the Bachelor's degree in Mathematics (with Physics as subsidiary subject) or Physics from the University of Hamburg. Please have a look at the Scientific Prerequisites on our website:

<https://www.math.uni-hamburg.de/en/studium/master/msc-mathematicalphysics/bewerbung.html>

If you have not received your degree certificate yet, you can submit this by the end of the first semester of your master's program. Please see the "**Documents to Submit**" section below for details.

Additional Special Admission Requirements

Your proficiency in English will be considered as proven if at least one of the following applies to you:



- (a) You have passed a test within CEFR/TELC at level B2
- (b) You have passed the IELTS test with a score of at least 5.0
- (c) You have passed the TOEFL test with 72 credits in the internetbased-test (TOEFL iBT)
- (d) You have passed Cambridge Certificate of Advanced English (CAE), of Proficiency in English (CPE), Higher Business English Certificate (BEC), First Certificate in English (FCE)
- (e) You have a degree from a Bachelor degree program taught in english language
- (f) You have a high school diploma accepted at English language universities
- (g) You have spent at least 6 months in an English speaking country
- (h) You have participated in English classes at a German-speaking school for at least seven years.

For details of the legal basis for this regulation, please see the admission bylaws for your chosen degree program: www.uni-hamburg.de/zugang-master

Recognition of Transcripts for Degree Programs Completed at Foreign Higher Education Institutions

If you obtained your first degree abroad, your certificate will be reviewed during the application procedure in the faculty of your program.

If your degree certificate is not in English or German, please include a copy of a certified English or German translation of this together with your application documents.

Application

Online Application

You will need to complete the online application available on Universität Hamburg's application portal during the application period: www.uni-hamburg.de/online-application Please create a user account, enter your information online, upload the required documents to your online application and submit your application online.

The application procedure for the master program is an online procedure. This means that you do not need to submit any documents in paper form or via email to Universität Hamburg. Instead, you have to upload the documents. Selection is based on the information you provide online and the documents you upload.

If you want to submit an additional special application (e.g. hardship application), you will need to send this special application separately via the online application portal together with the



required proofs as an upload by the application deadline. For more information on special applications, please see www.uni-hamburg.de/sonderantrag and www.uni-hamburg.de/info-master

Documents to Submit

For documents not issued in English or German, an electronic copy of a certified English or German translation is required.

- **Degree certificate or provisional Transcript of Records**

If you are still studying when you apply and cannot yet provide a final certificate containing your grades, please submit your current Transcript of Records confirming your provisional grade point average. You will then need to submit your degree certificate by the end of the first semester of your master's program.

The content of this degree must be comparable to the Bachelor's degree in Mathematics (with Physics as subsidiary subject) or Physics from the University of Hamburg. Please have a look at the Scientific Prerequisites on our website: <https://www.math.uni-hamburg.de/en/studium/master/msc-mathematicalphysics/bewerbung.html>

- **Current Transcript of Records with proof of the conversion of your final grade or your current grade average into the German grading system**

If you do not have proof for this, we recommend that you provide your current overall grade, as well as the highest and lowest grades that are considered passing grades at your university. You can also request this conversion at www.uni-assist.de if necessary. Grade conversions from the Zentralstelle für ausländisches Bildungswesen (Central Office for Foreign Education), the Zeugnisanerkennungsstellen (Certificate Recognition Offices) of the German federal states and APS certificates from the Akademische Prüfstellen (Academic Examination Offices) of China, Vietnam and Mongolia can also be submitted.

- self-written **list of your modules in "Mathematics for students of Physics"** or equal and their credit points

- self-written **list of your completed modules in Advanced Mathematics** and their credit points

- self-written list of **your completed modules in Theoretical Physics** (in particular in Quantum Mechanics) and their credit points

- **Curriculum vitae**

- Short **letter of motivation** (about one page): What do you like about mathematics? What interests you most? What are you hoping to achieve in your course?

- Proof of knowledge of the **English language** (see **Admission Requirements**)



We recommend that you be able to follow courses and seminars in English as well as in German.

The copies of your documents need not to be certified. Copies in English or German are accepted. If your certificates are in another language, please enclose a copy of a certified translation.

Selection Criteria

If the number of applicants exceeds the number of places available, a selection procedure will be necessary. The following selection criteria are used to calculate a selection rating:

- a) grade of your bachelor's degree and length of studies
- b) relevant qualifications or work experience for the Master's program in Mathematical Physics
- c) other qualifications, e.g. international experience or grade of your higher education entrance qualification
- d) personal statement

For details of the legal basis for this regulation, please see the selection by laws for your chosen master's program: www.uni-hamburg.de/auswahl-master

Admission and Enrollment

Once your application has been reviewed, an acceptance or rejection letter will be made available in your STiNE account under the Dokumente (Documents) tab. Please see the information at www.uni-hamburg.de/online-application. An enrollment deadline will be indicated in your acceptance letter - please submit the documents required for enrollment by this date. Detailed information about the enrollment process is provided at www.uni-hamburg.de/masterenrollment

FAQs

<https://www.math.uni-hamburg.de/en/studium/master/msc-mathematicalphysics/bewerbung.html>

Contact

Do you have further questions? Please send us an E-Mail to studium.math@uni-hamburg.de

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