FREIE UNIVERSITÄT BERLIN

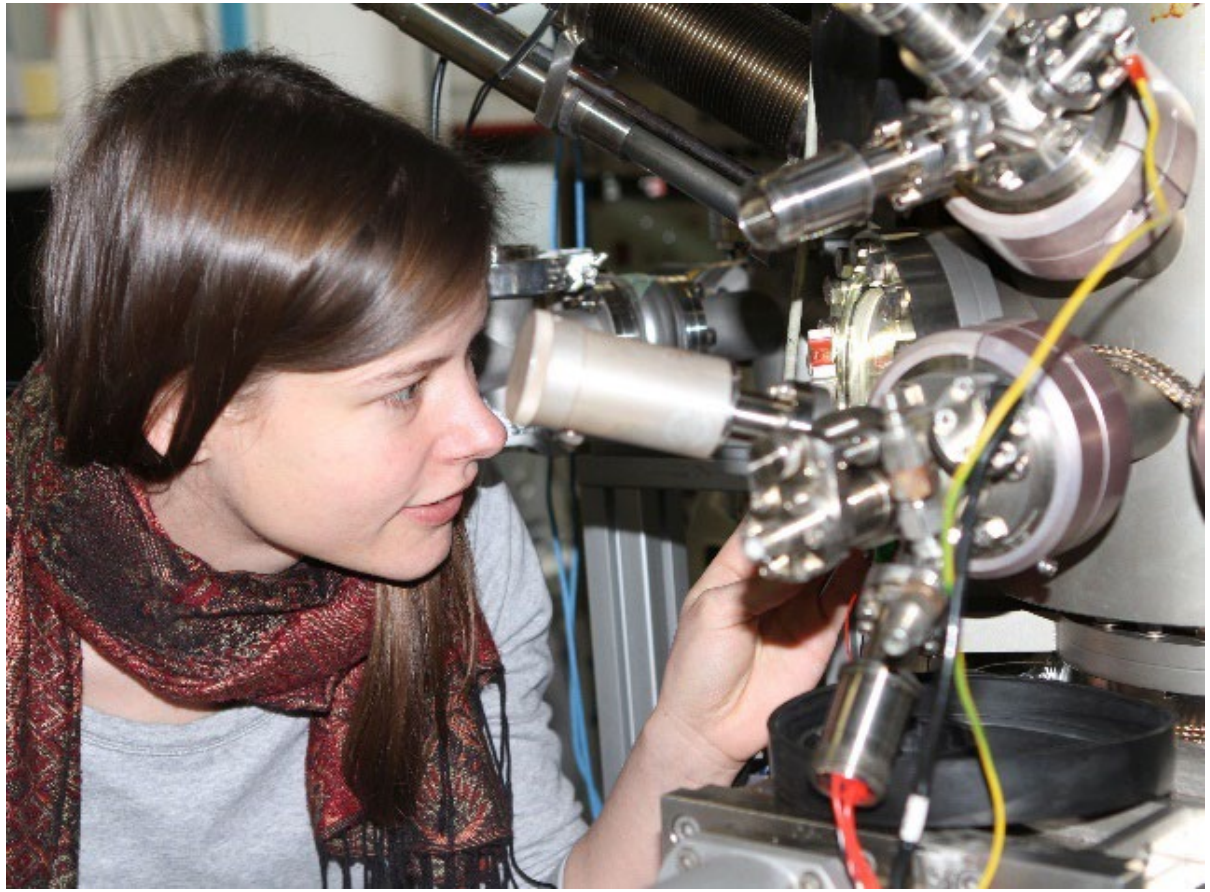
Master of Science in Physics

Graduate Program for International Careers in Research

Department of Physics | 22.05.2024

Schedule

- University & Department
- Master of Science & French-German Double-Degree Master‘s Program
- Dates & Contacts
- Career Perspectives



About Freie Universität Berlin

- public university
- no tuition fees
- excellent research

About Department of Physics

- 75 years of expertise
- 30 research groups
- 200 master students, 60% from abroad

Global Ranking by Subject

- No. 89 in the THE Ranking (2023)
- No. 113 in the QS Ranking (2024)

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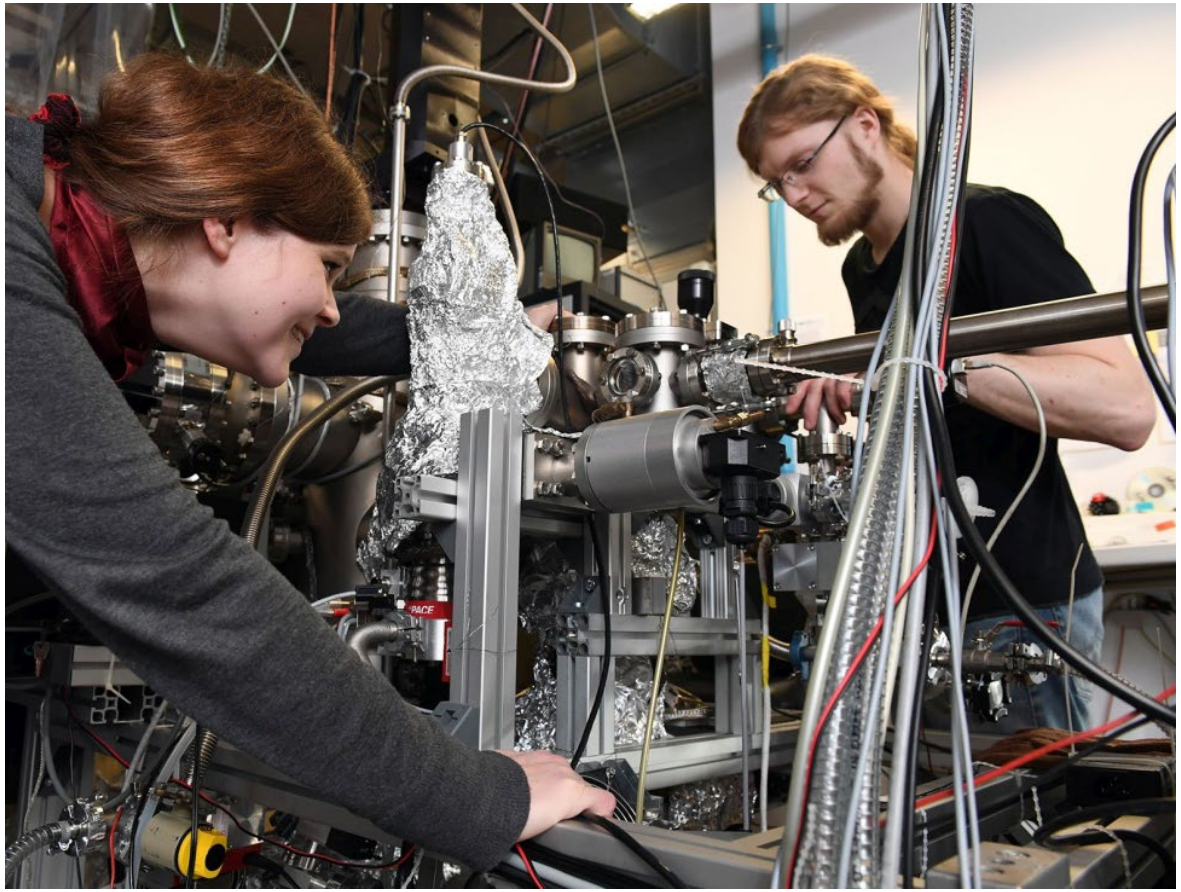
FREIE UNIVERSITÄT BERLIN

Program‘s Structure

Masters Program

- English only
- 4 semesters
- research-oriented



Requirements

- at least B2 English language proficiency
- no GPA
- equivalent B. Sc. in Physics

Program‘s Structure

Advanced Phase

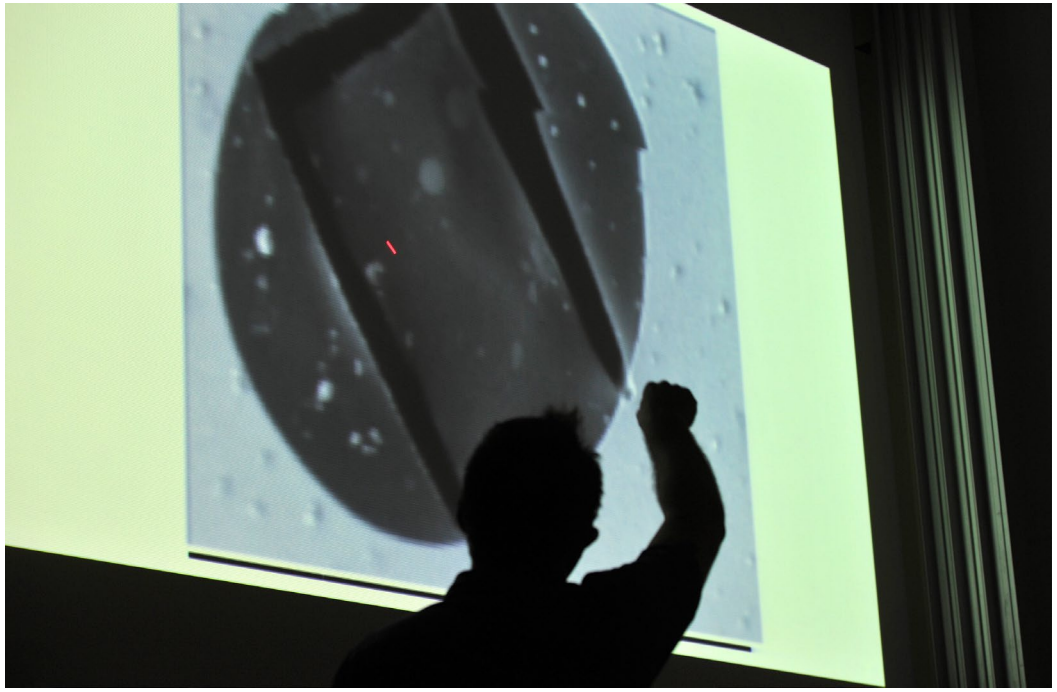
- 2 semesters
- lab courses
- lectures & seminars

Research Phase

- 2 semesters
- join a research group
- master thesis

Courses

Lectures

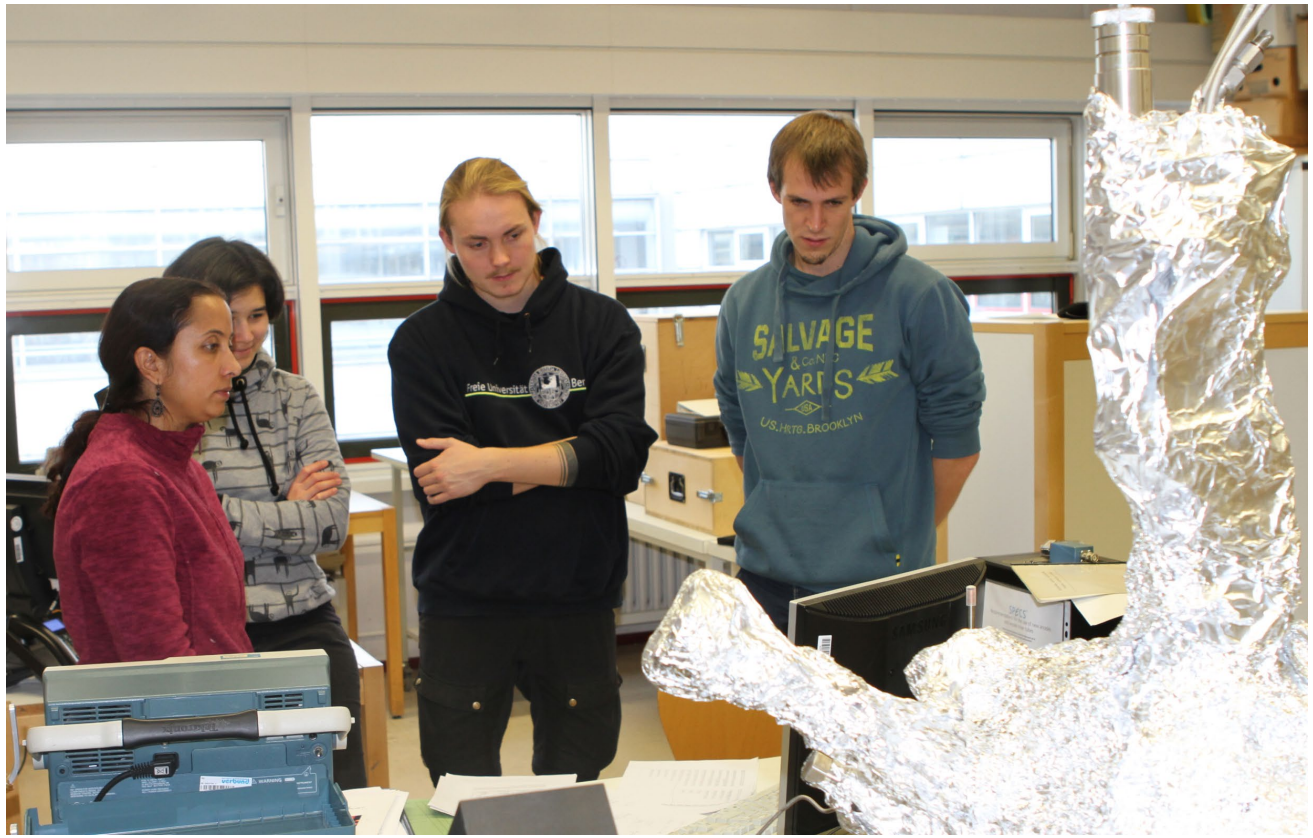


Seminars

Lab Courses

Some experiments

- Pulsed Nuclear Magnetic Resonance (NMR)
- Photoelectron spectroscopy (PES)
- Raman Scattering
- …



Recommended schedule

2.1. Sample programme plan for the Master's degree programme in Physics

The modules of the first and second semesters may be taken in any order. Students are recommended to divide the work load evenly between the two semesters.

<table>
<tr><th>1st semester
30 CP</th><th>2nd semester
30 CP</th><th>3rd semester
30 CP</th><th>4th semester
30 CP</th></tr>
<tr><td colspan="2">Advanced phase</td><td colspan="2">Research phase</td></tr>
<tr><td>Compulsory module
Advanced Laboratory Course
for Master Students
(10 CP)</td><td>Compulsory module
Selected Topics in Physics
(5 CP)</td><td>Compulsory module
Scientific Specialisation
(15 CP)</td><td rowspan="3">Master's thesis
with accompanying seminar
(30 CP)</td></tr>
<tr><td colspan="2">Compulsory elective area 20 CP
(at least one module from Theoretical Physics 10 CP)</td><td rowspan="2">Compulsory module
Methodology and Project Planning
(15 CP)</td></tr>
<tr><td>Elective area
10 CP</td><td>Elective area
15 CP</td></tr>
</table>

Study Regulations

www.physik.fu-berlin.de/master

Homepage › Study › Master of Science

Master in Physics

- Degree - Master of Science (M. Sc.)
- Research-oriented
- Following on the Bachelor
- Provides entry into doctoral programs
- Duration - 4 semesters
- Language - English
- Beginning - winter and summer semester
- No tuition fees

Students acquire specialized knowledge in diverse fields of physics, deepen their understanding of scientific methods and strengthen their expertise in theoretical and experimental physics.

Excellent research community

- As a master student, you will be a part of the cutting-edge research at our university.
- You will receive individual support from instructors and professors.
- You will benefit from our well-equipped laboratories and international networks.

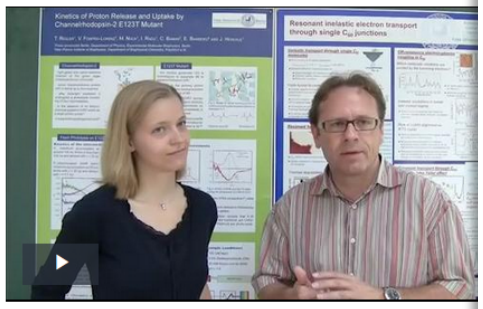
Requirements

- Bachelor of Science in Physics or similar degree*
- Certified English language proficiency at level B2 or higher

* Your bachelor's degree must be equivalent to the bachelor's degree in physics of the Freie Universität Berlin

Apply for Master's Program

Graduate in Physics



Prof. Dr. Katharina Franke and Prof. Dr. Joachim Heberle

Physics Master's Program — Unleash a Scientist Inside of You

If you admire the complexity of things and strive for new cognitive challenges every day, then you will fit right into our community. Our students and graduates have curiosi
their blood and the perpetual question "Why?" in their minds. The research topics inside the department include quantum computing, nanoscience, biological nanomac
quantum information, and many others.

DOCUMENTS AND LINKS

Please note that only German versions are legally binding.

- Study regulations for the Master's Programme in Physics - English, 2020
- Access Statute - German, Zugangssatzung, 2022
- General Information Concerning Application for Master's Programs
- List of non-physics courses in elective area - English
- Study Plan during your Master's: first year
- Form Research phase registration - English, please print double-sided
- Form Exam "Scientific Specialization" - German
- Recommendations: Good scientific practice for reports and theses
- Scientific Integrity
- Flyer Masters' Program in Physics

Study Regulations

1. Compulsory area

Module: Advanced Laboratory Course for Master Students				
University/Department/Teaching Unit: Freie Universität Berlin/Physics/Physics				
Responsible for the module: Module lecturers				
Admission requirements: none				
Qualification aims: The students have mastered more complex issues in physics. They are familiar with and can apply the more advanced experimental methods used in current physics research to solve these issues. They are able to master a new field of work in a short time from current specialist literature and to communicate it comprehensibly in presentations.				
Content: Study of literature as introduction to a new field; close study of physics issues, modern experimental methods and measurement technologies; documentation of experimental process; critical evaluation and discussion of findings; written presentation of issues, evaluation and findings; presentation and explanation of experimental methods, their possibilities and limitations. Topic fields: solid state physics (magnetism, surface physics, superconductivity), atomic and molecular physics, nuclear physics, biophysics.				
Teaching and learning units	**Compulsory attendance** (Semester hours per week = SH)	**Forms of active participation**	**Study time** (hours)	
Practical	6	Carrying out and documenting practical experiments	Attendance at practical (P) Practical (P) preparation and follow-up	90 150
Seminar	2	Lecture of approx. 20 minutes, participation in discussion	Attendance at seminar (S) Seminar (S) preparation and follow-up	30 30
Module examination		none		
Module language		English (or German)		
Compulsory regular attendance		Yes		
Study time, total hours		300 hours		10 CP
Duration of module		One semester		
Module offered		Every semester		
Application		Master's degree programme in Physics		

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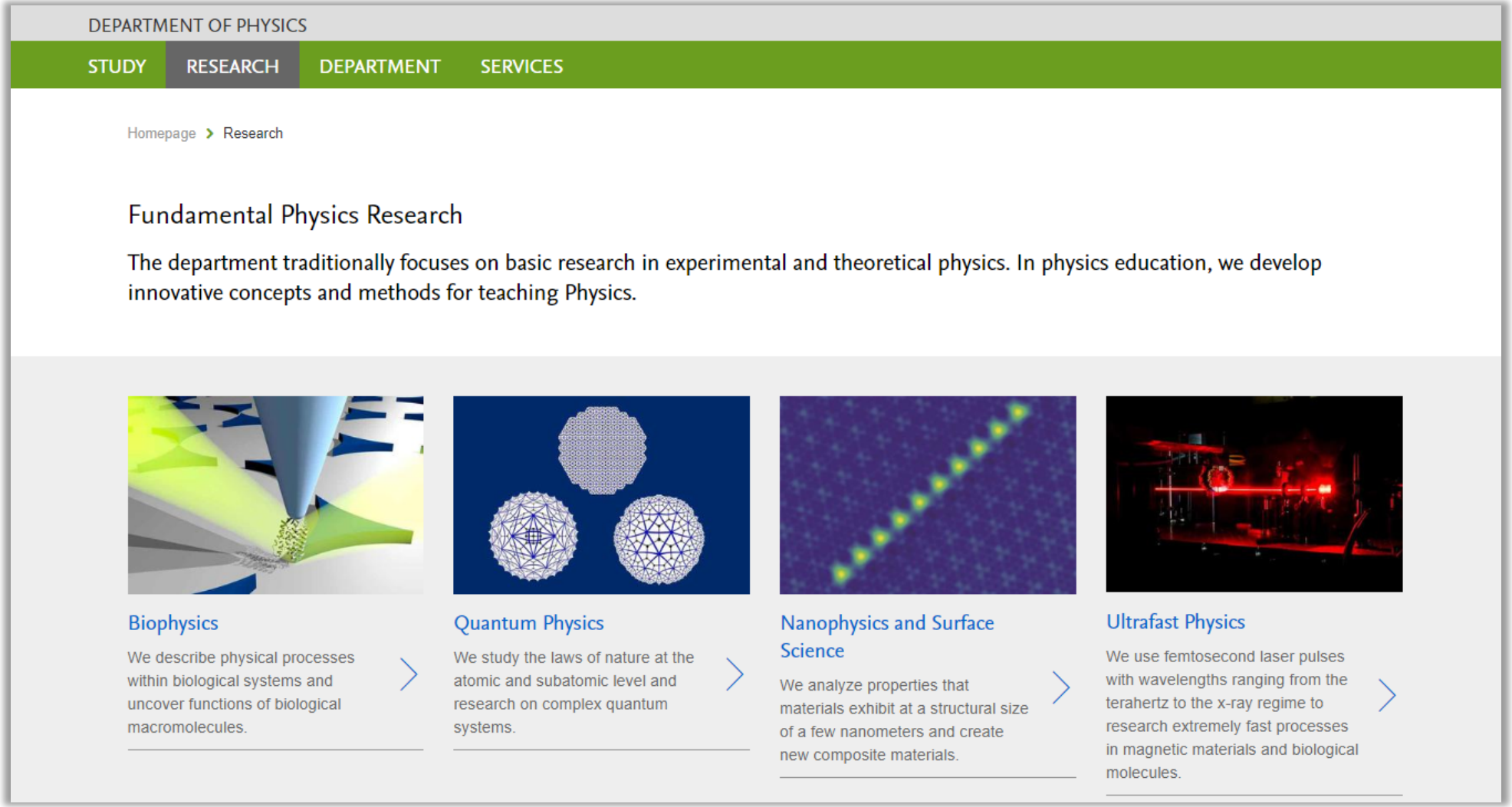
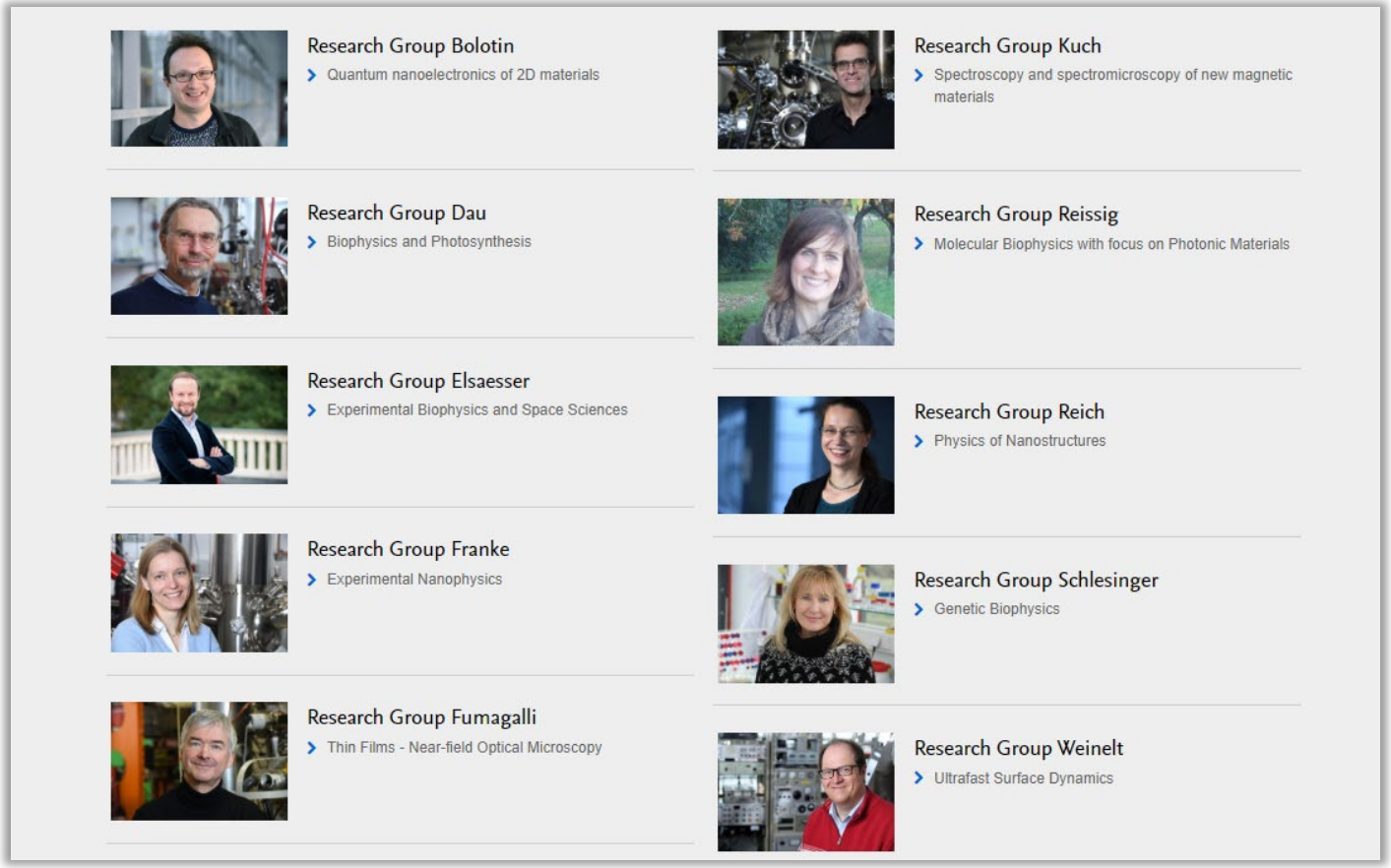
Research Focus



Research Focus

www.physik.fu-berlin.de/research



Scientific Network

Adjunct Professors

- Dr. Silke Christiansen, Adjunct Professor, Fraunhofer IKTS
- Dr. Klaus Lips, Adjunct Professor, HZB
- Dr. Marc Vrakking, Adjunct Professor, MBI
- Dr. Beatriz Roldan Cuenya, Adjunct Professor, FHI / MPG
- Dr. Hans-Joachim Freund, Adjunct Professor, FHI / MPG
- Dr. Gerard Meijer, Adjunct Professor, FHI / MPG
- Dr. Heinz-Eberhard Mahnke, Adjunct Professor, HZB
- Dr. Jürgen Renn, Adjunct Professor, MPG
- Dr. Matthias Scheffler, Adjunct Professor, FHI / MPG
- Dr. Martin Wolf, Adjunct Professor, FHI / MPG
- Dr. Michael Giersig, Adjunct Professor
- Dr. Dirk Manske, Adjunct Professor, MPI

Fraunhofer IKTS

Fraunhofer Institute for Ceramic Technologies and Systems IKTS

HZB Helmholtz Zentrum Berlin

MAX BORN INSTITUTE
for Nonlinear Optics and Short Pulse Spectroscopy

FRITZ-HABER-INSTITUT
MAX-PLANCK-GESELLSCHAFT

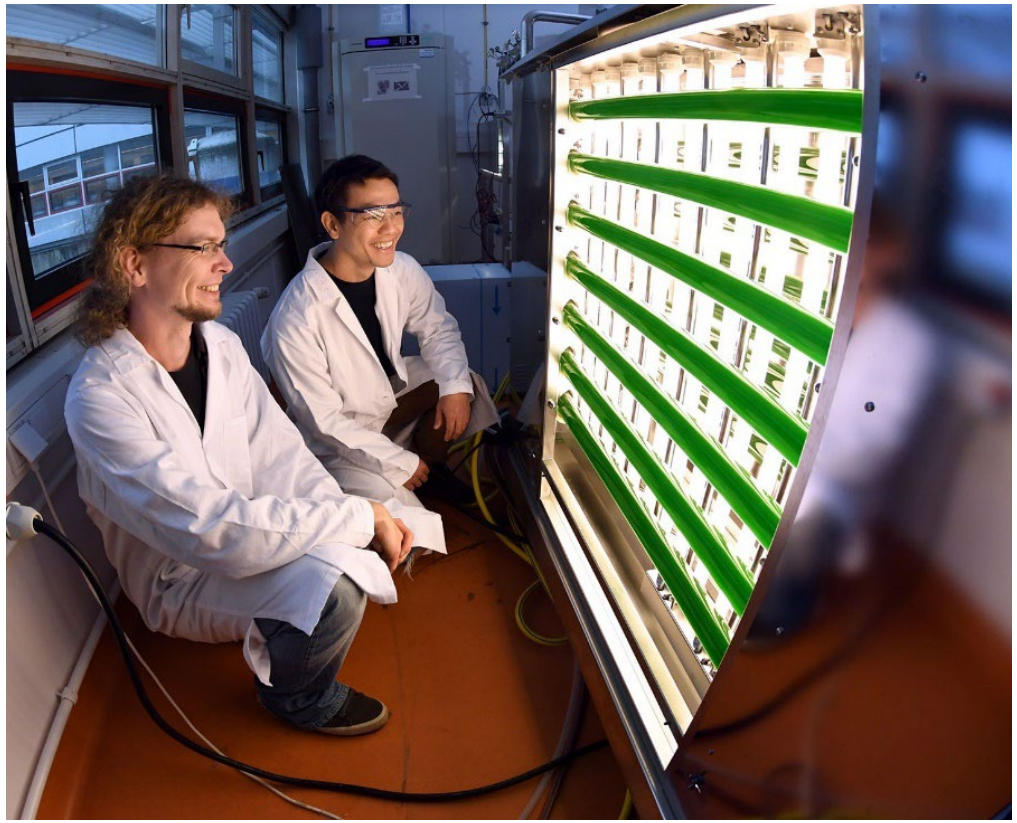
MAX PLANCK INSTITUTE
FOR SOLID STATE RESEARCH

BESSY II - Electron Storage Ring

Measuring times blocked for Freie Universität Berlin

Working side by side with scientists

- qualifying for international scientific career
- encouraging and supportive
- learn German for free
- freedom

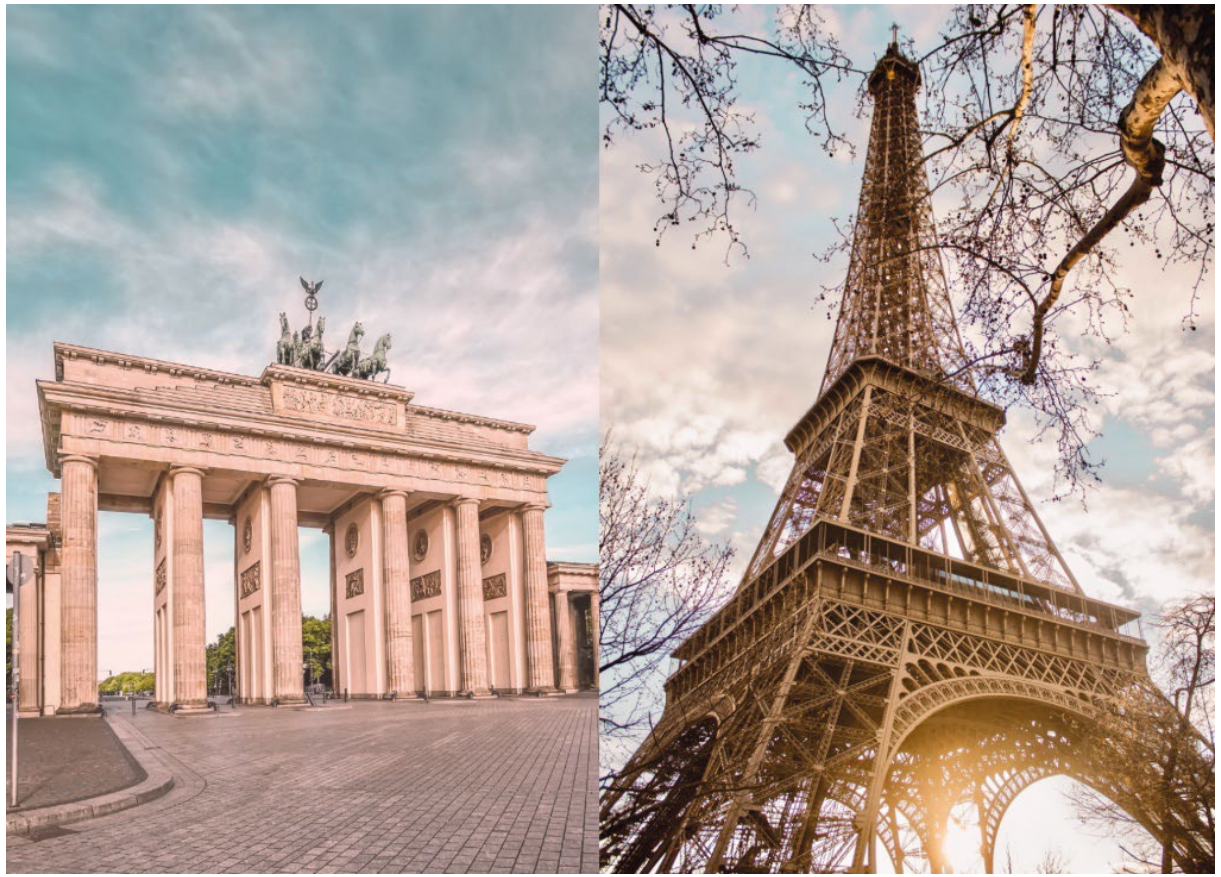


FREIE UNIVERSITÄT BERLIN

Double Degree

French-German Master‘s Double-Degree

- Two diplomas in one program
- Institut Polytechnique de Paris
  + Freie Universität Berlin



French-German Master‘s Double Degree

1st year

Berlin

60 ECTS

2nd year

Paris

60 ECTS

French-German Master‘s Double Degree

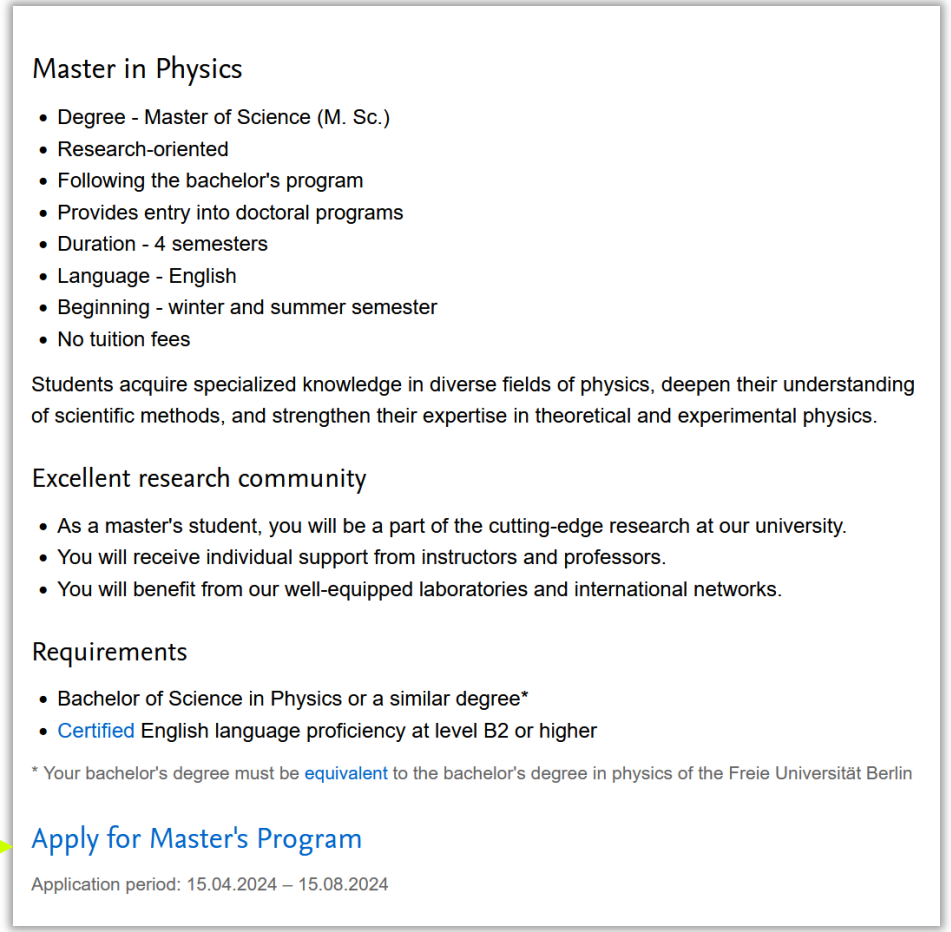
- mandatory enrollment as FU student
- program in English
- German and French at least A2 GeR
- double application (Freie Universität and IP)

FREIE UNIVERSITÄT BERLIN

Application, Dates & Contacts

Application

www.physik.fu-berlin.de/master



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Application period: 15.04.2024 – 15.08.2024

Application Period

Winter semester 2024/25	15.04.2024 - 15.08.2024
Summer semester 2025	01.12.2024 - 15.02.2025

Hurry up!

- 6 weeks in advance
- transcript of 2/3 of records

Student advisory

Leo

studienberatung@physik.fu-berlin.de

Friday 1-2 pm

Online counselling available!

Master‘s Program Coordinator

Prof. Dr. Kirill Bolotin

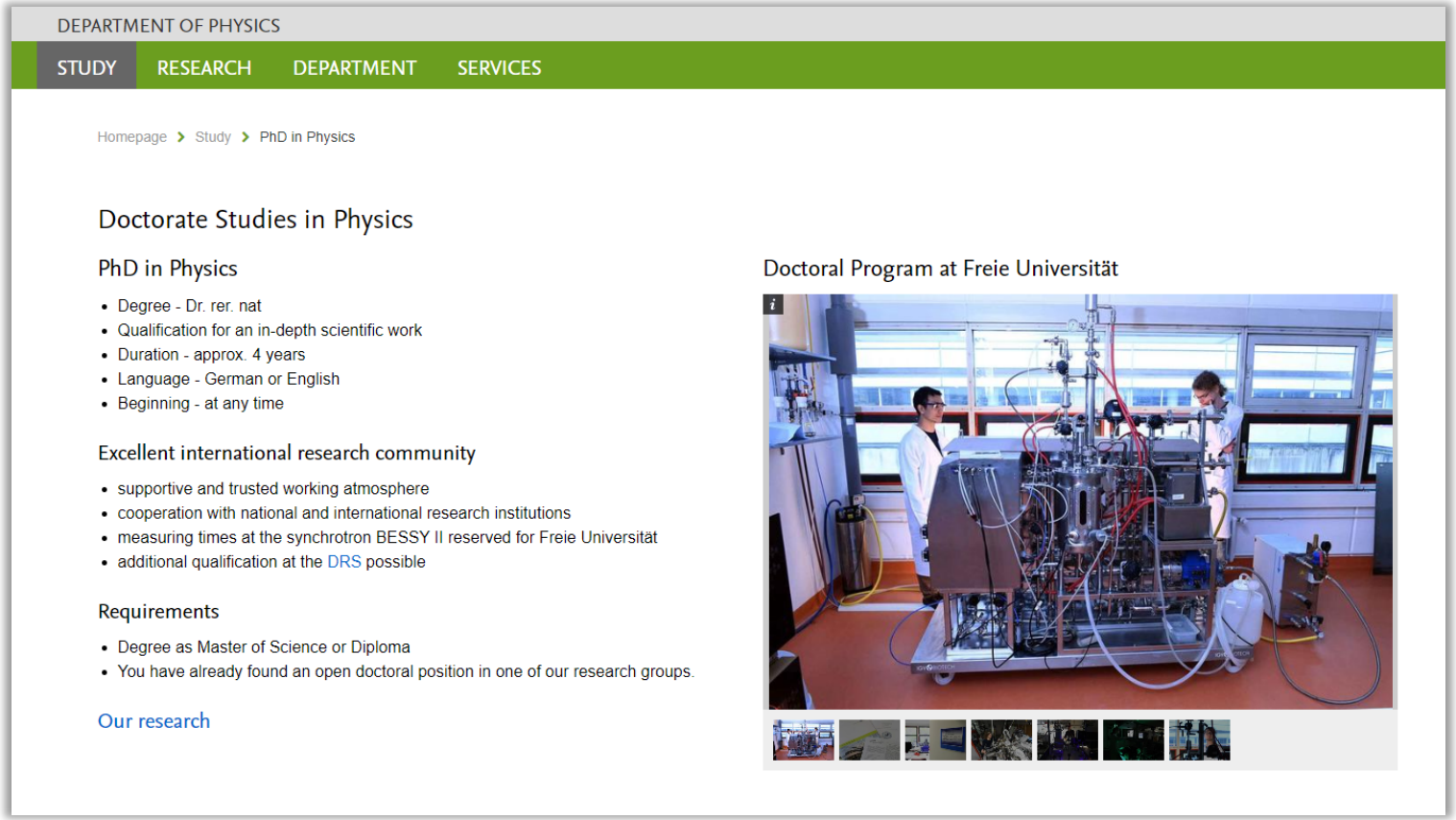
masterstudium@physik.fu-berlin.de

FREIE UNIVERSITÄT BERLIN

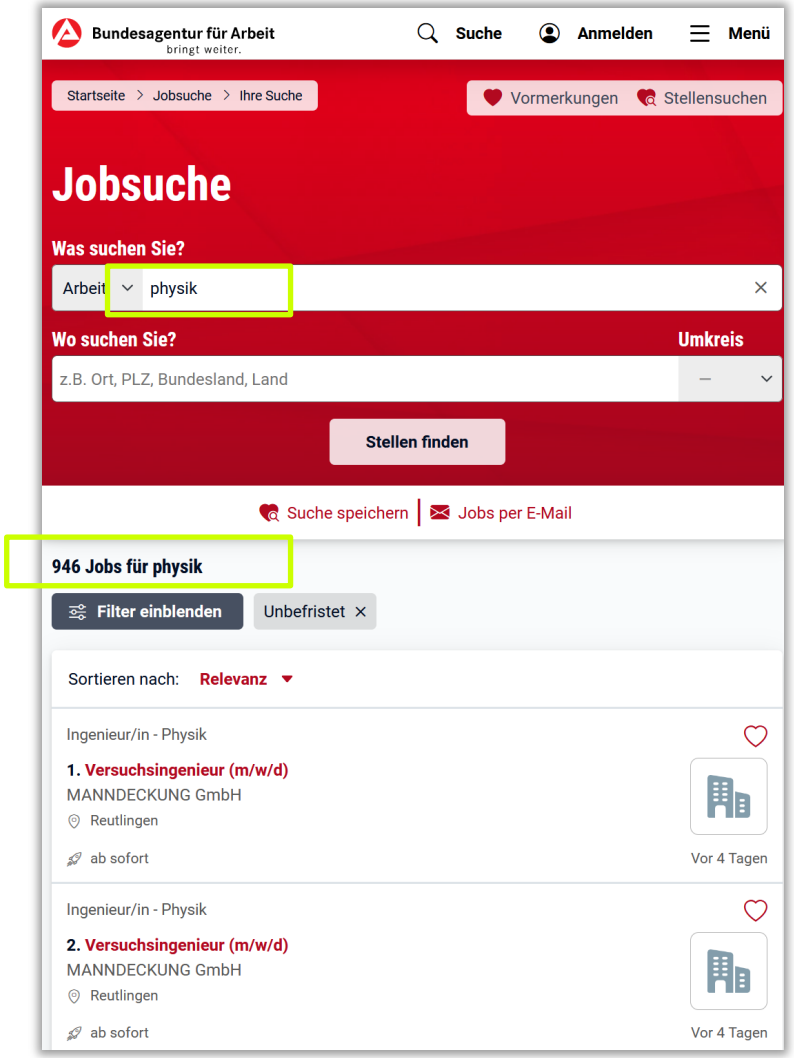
Career Perspectives

Postgraduate Program

www.physik.fu-berlin.de/phd-physics



Career Perspectives

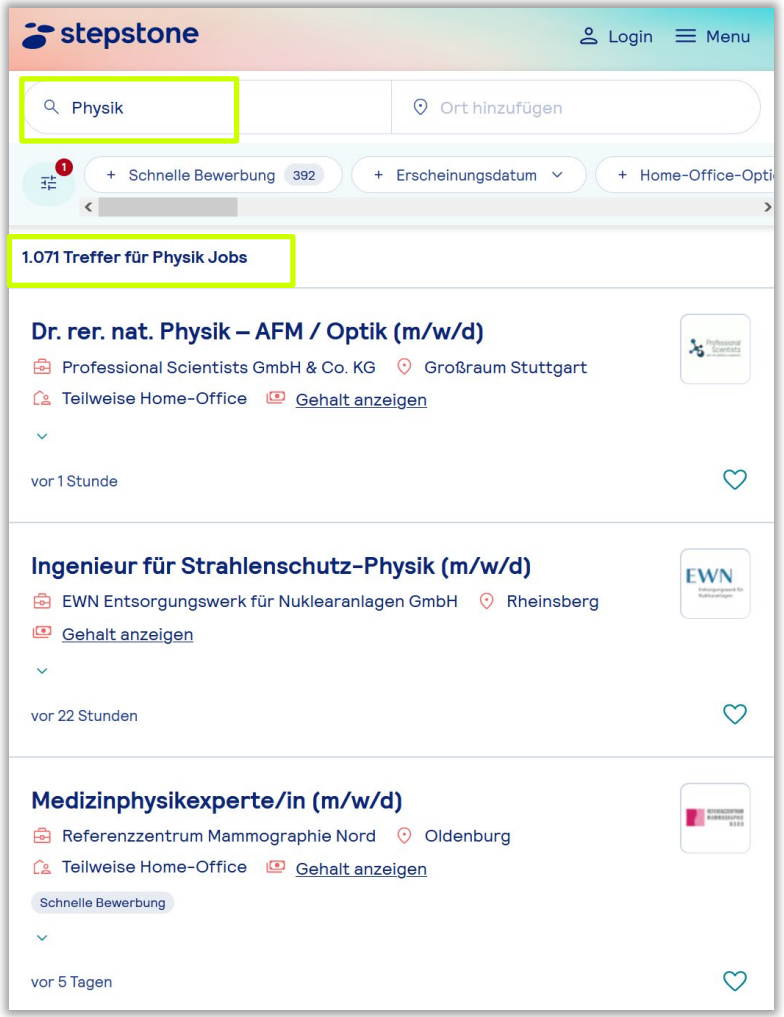


22.05.2024

permanent

positions

open



Career Perspectives

Johann Egger

Securenergy, Project manager for commercial scale PV-projects

Dr. Mathias Mews

Bosch, Development Engineer

Dr. Stefanie Kreft

Mechanical Engineering, industrial sealing technology

Senior Director Digital Engineering;

Career Perspectives

Matts Nissen

KPMG, Senior Associate Financial Services – Risk & Treasury

Dr. Lea Bogner

Physicist as technology transfer advisor

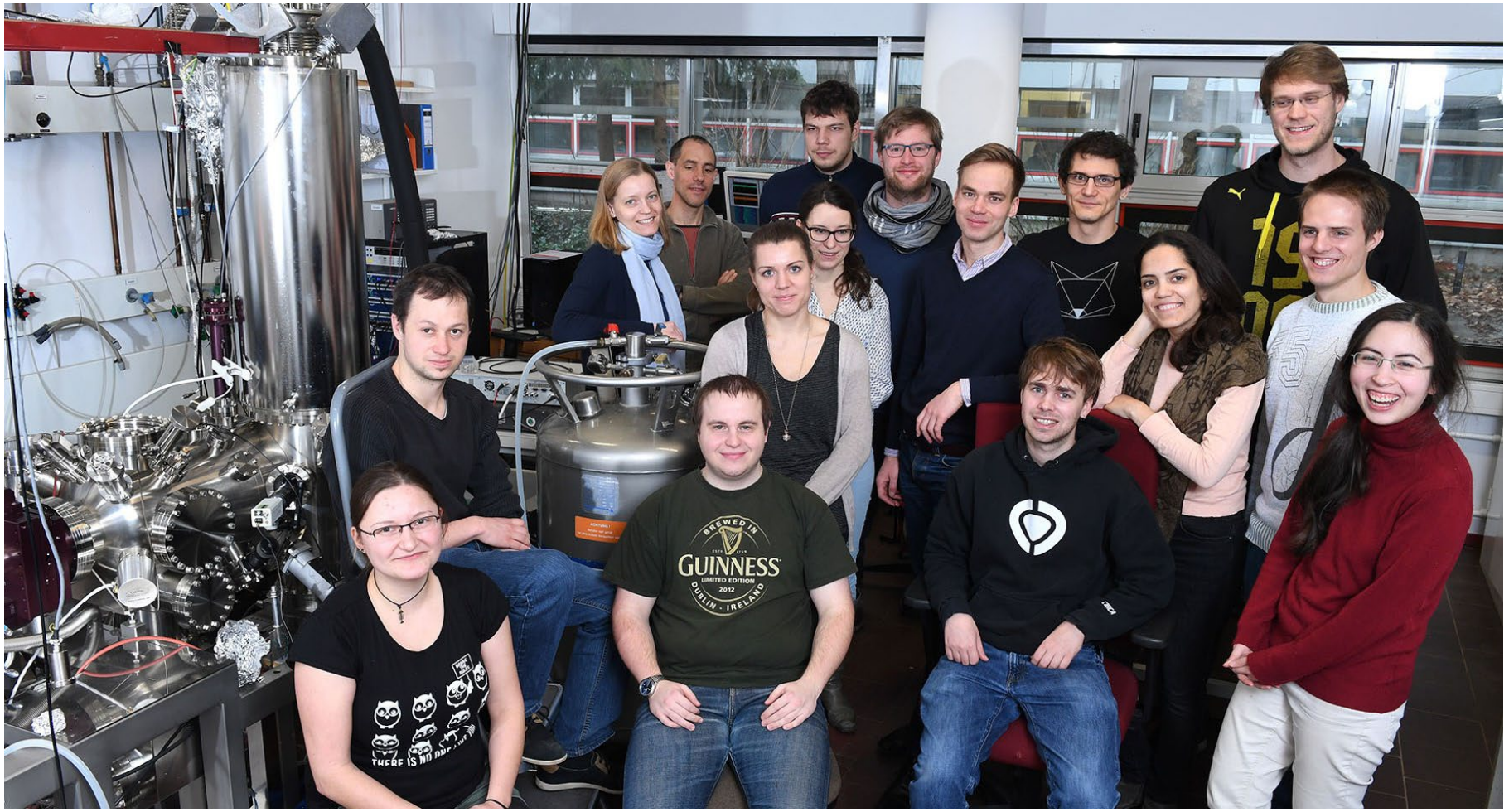
Dr. Bianca Lim

Institute for Solar Research, Strategic Planning/Business Development

Career Perspectives

www.physik.fu-berlin.de/pathways

Be a Part of our Physics Community!



Campus Life

- sports
- parties

Living in Berlin

Start looking for a flat in advance!

Looking forward to seeing you!