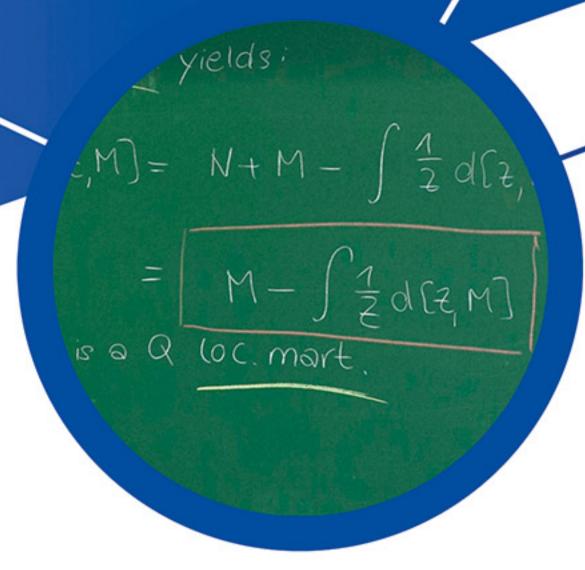


## **STUDYING**



### Profile & Content

The Master's program has a prescribed length of four semesters (two years) and ends with the "Master of Science" degree.

It builds on a first academic degree in mathematics (e.g. a Bachelor's degree) and offers the opportunity to deepen the academic knowledge in one of the several major areas of mathematics, both pure and applied.

Teaching at the Faculty of Mathematics and Physics is research-oriented and at a high level with a large range of courses offered. Among the skills which the participants will acquire are:

- knowledge of the main mathematical disciplines and their interdependence,
- ability to handle current mathematical research literature
- · ability to scientifically process and depict mathematical problems.

Successful completion of the Master's program qualifies the graduates for:

heading projects which involve analysing, modelling and solving scientific, economic or technical problems,
 executing planning, developmental and research tasks in business, industry and public institutions,
 admission to a PhD program.

# LIVING & LEARNING



## The University

Founded in 1831, today, 26,600 students are enrolled at Leibniz Universität Hannover. It is an international university with currently more than 3,500 international students and about 400 partner universities worldwide. It is a member of TU9, the nine outstanding German universities with an excellent spectrum in teaching and research.

Leibniz Universität Hannover is named after the universal scholar and scientist Gottfried Wilhelm Leibniz (1664–1716), who lived and worked in Hannover.

#### The Town

Hannover, the capital of the federal state of Lower Saxony,
has just over half a million inhabitants and is centrally located: Berlin,
Hamburg and Goettingen are easy to reach by bus or train. The Harz
mountain range is about an hour away. As host to several fairs,
Hannover is very open and welcoming to international guests and partners.

Hannover is a "green" city with many parks, which are ideal places to relax.

The "Eilenriede" contained within Hannover, is one of Europe's largest city-forests. With a 650 hectare forest area it is bigger than Hyde Park or Central Park, making it an ideal place for jogging or going for walks.

Germany is among the safest countries in the world, and Hannover is no exception.

## Costs, Fees & Opportunities

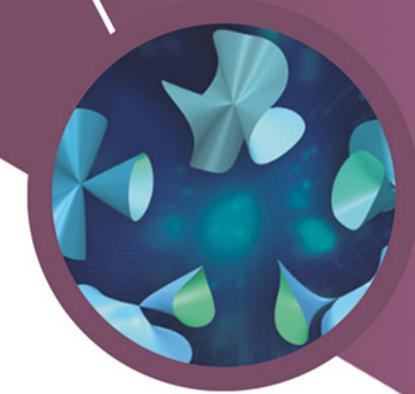
There are no tuition fees, upon enrollment, students have to pay approx. 410 EUR as administrative fee, incl. semester ticket for free public transport for six months in Hannover, and on local trains within Lower Saxony.

The average living expense in Hannover is roughly 790 Euros per month, incl. rent, food, health, clothing, communication, cultural events, sports, leisure activities and other amounts for studying.

There are many opportunities to work as a student assistant (Hiwi) as well as a graduate inside or outside the University.

The International Office offers a variety of support services for international students. It helps finding students a suitable accommodation, offers a pickup service from the airport or railway station, provides newly arrived students with a 'study-buddy' and helps them to deal with administrative issues. Moreover, it organizes an orientation week at the beginning of each semester.

# RESEARCH



## We aim for the top!

Mathematics in Hannover has a strong international reputation reflected in high positions achieved in national and international university rankings.

Our cutting-edge research is undertaken in a wide variety of contemporary areas of the mathematical sciences. The main research topics investigated at one of the seven institutes include:

Institute of Algebra, Number Theory, and Discrete Mathematics: representation theory, arithmetic number theory, reflection groups and arrangements of hyperplanes.

Institute of Algebraic Geometry: algebraic surfaces, Calabi-Yau manifolds and their moduli, mirror symmetry, modular forms, singularity theory.

Institute of Analysis: partial differential equations on manifolds with geometric singularities, spectral geometry, geometric and deformation quantisation, noncommutative geometry and operator algebras, subriemannian geometry

Institute of Applied Mathematics: applied analysis, formation of mathematical models, optimisation, numerical analysis and scientific computing.

Institute of Didactics: investigation of teaching and learning in areas of problem solving and mathematical reasoning.

Institute of Differential Geometry: geometric flow equations, symplectic geometry, Kaehler and hyperkaehler geometry, gauge theory.

Institute of Mathematical Stochastics: mathematical statistics, stochastical analysis, actuarial and financial mathematics, probability theory.