Master in Mathematics



Freshmen Information

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Greeting from the Fachschaft

Dear new master's people,

On behalf of the student council of mathematics, we would like to welcome you to the University of Bonn. In the coming weeks and months, we will help you in every possible way to find your place in the world of mathematics in Bonn.

To get you started with your master studies in Bonn, we have created this Master Information for you, in which we have, among other things, compiled some general information about who to approach as well as our own tips and tricks. Seeing how moving to a new place is always challenging, we also tried to give you as much useful information about the city as possible, ranging from the locations of the different institutes to the best places to grab food.

Beyond that, we are committed to helping you get in touch with your new fellow students. We can link you up via several messenger services (all of which you can find in here) and have organized some events at the start of the semester to help you get to know each other. Then, during the bulk of the semester, we hope to be able to welcome you to our regular events with the rest of the math students in Bonn, such as our game nights or our infamous wine and cheese evenings.

Should you encounter any problems, please do not hesitate to contact us for help. The members of the student council, will gladly answer any question and assist you to the best of their abilities.

I look forward to meeting lots of new people and wish you the best of luck and lots of fun in the upcoming semester.

Your Master's department of the student council (FSR)

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Start of your Studies

You wake up in the morning, get ready, eat breakfast and then take your bike or the bus to go to the university. There, you attend a lecture, eat lunch with your friends in the Mensa and take part in an exercise class afterwards. Later, you meet up with some fellow students in a seminar room or in the library to look at the last lecture again, solve exercise sheets or simply to study together.

In the evening you go home, pursue a hobby or go grocery shopping. Afterwards, you (and your roommates) cook dinner and to finish your day, you do a little more math.

This is approximately what a usual day during the semester looks like for a maths student.

The First Week

On 13. October, the first day of the lecture period, there will be an information session by the Bachelor-Master office (Bachelor-Master Office (BaMa)). It will take place at 8:15am in the morning in the "small lecture hall" in "Wegelerstraße 10". You should definitely attend this event, as you will receive general information about your studies there. Mrs. Kiesel from the BaMa will give an overview of how the master in Mathematics in Bonn is structured, which sorts of lectures there are and which requirements you have to meet in order to graduate in the end. After that, some professors from the different areas will introduce the specific lectures that are offered this semester and tell you which lectures are recommended for your first semester. In the end, we, the student council, will also introduce ourselves and tell you about the events that we have planned for the first two weeks.

So far, we have planned to do a Welcome Evening on 13. October at 6pm at the annex, starting with a campus tour. Then, we will play some fun games to get to know each other. Afterwards, there will be enough time to talk to each other and maybe find fellow students that take the same lectures as you. We will have some free snacks and drinks that you can buy at cost price.

Later this week, on 16. October at 7pm, there will be a "Wine and Cheese Evening" (WaCE) explicitly for

master's students. At this event we have free baguette, cheese, hummus and some other vegan options. But most importantly, there will be wine and grape juice at cost price. We have "good" wine and "better" wine, so you are in for a treat. This is always a very popular event, which is why you should definitely come around!

Finally, on 20. October at 8pm, we will be paying a visit to the local cinema, the WOKI. We will be attending the Sneak Preview there, which means that we get to view a random movie not yet released to the public. Anyone interested is to approach the person walking around at our events with the related list.

Information & Assistance

The BaMa offers office hours to advise you on questions about your studies. Usually you can just drop by their office. More information about the times can be found on their website. Additionally, you can always ask them questions via email.

The following box contains contact information of the BaMa and also a link where you can find up-to-date information about how you can use the Library of Mathematics.

BaMa

Address Endenicher Allee 60, Room 0.004.

Email bama@math.uni-bonn.de

Phone +49 228 73 3180

Website www.mathematics.unibonn.de/studium/en/contact

Library of Mathematics

bib.math.uni-bonn.de

There is a WhatsApp group (included in a community) open for all master's freshmen of the current semester. We plan on using this group to keep you posted on current events.

Finally, for additional information about who we are and what we do, you can read the appropriate chapter further in this booklet, or visit our website. And if you have any Master-related questions or problems, you can

WhatsApp

Website

Email

Welcome Evening

BaMa

1

contact the Master Department of the Student Council by Email.

$Master's \ freshmen \ WhatsApp \ group \ \ chat.$

whatsapp.com/FvqEsu6p57DEEypKHNirD1



Student Council Website

www.fsmath.uni-bonn.de/en

Master Department Email

master@fsmath.uni-bonn.de

A Crash Course on Master's Courses

In this article, we try to give an overview of what kinds of lectures exist in Bonn, and how these differ from one another. More detailed information can be found in the official "Module Handbook".¹

The Kinds of Lectures

areas

The mathematics courses in Bonn are divided into six areas, labelled A–F. For technical reasons, there are also two additional groups of courses, labelled G and X, but we will ignore these labels for now.

- A Algebra, Number Theory and Logic
- **B** Analysis and Differential Equations
- C Discrete Mathematics
- **D** Geometry and Topology
- E Numerical Mathematics and Scientific Computing
- F Probability and Stochastic Analysis

Table 1: The areas of mathematics in Bonn.

The mathematics courses in Bonn are also distinguished into the following six kinds.

Graduate lecture course This kind of course consists of two lectures per week. There are weekly exercise sheets and weekly tutorial sessions in which solutions are discussed. At the end of the course, there is an exam. This exam can be either written or oral, depending on the number of participants. Completing such a course rewards you with 9 credit points.

Foundation lecture course These are bachelor's lecture courses that are also open to master's students. There are between two and four Foundations in each of the areas A–F. They are structured just like Graduate lecture courses: There are two lectures per week, weekly exercise sheets, weekly tutorial sessions and an exam at

the end of the course. This exam is usually a written one, but it may also be oral, again depending on the number of participants. This kind of course is also worth 9 credit points, just like Graduate lecture courses.

The Foundation lecture courses are meant to give you the opportunity to widen your mathematical horizon and explore new areas of mathematics. However, the university does not want you to spend too much time on modules of the bachelor's programme. Because of this, you're only allowed to count one Foundation course per area (A–F) towards the final grade of your master's studies. (We'll come back to this later.)

Advanced Topics This kind of lecture course also consists of two lectures per week, but there are neither exercise sheets nor tutorial sessions. There is an exam at the end of the course, which is typically oral. Passing the exam grants you 7 credit points.

Selected Topics With this kind of lecture course we are down to one lecture per week with neither exercise sheets nor tutorial sessions. There is an exam at the end, which is typically oral. This kind of course is worth 5 credit points.

Graduate Seminar Such a seminar consists of a series of talks throughout the semester, usually at the pace of one presentation per week.

The topics are distributed among the participating students, and each student typically gives one talk. But it may also happen that two students share one presentation, or that some students cover several topics, depending on the total number of talks and participants.

The final grade is not based on an exam but the given presentation instead. Successfully participating in a seminar will yield 6 credit points.

Practical Training Courses The study of mathematics can oftentimes be of a rather theoretical nature. But if you want to spice things up in your studies, then you should consider taking a

¹The Module Handbook: www.mathematics.uni-bonn.de/studium/medienordner-studium-1/dateien/po-modulhandbuch/mscmath-modulhandbuch.pdf.



Figure 1: An oral exam at the end of an Advanced Topics course on game theory.

Practical Training Course. There are three options from which you may choose, each of which provides 9 credit points:

Practical Teaching Course To take a Practical Teaching Course you'll have to work as a tutor for one of the mathematics lecture courses for one semester. (This includes both bachelor courses and master courses.) As a tutor, you'll be in charge of one of the weekly exercise sessions,² which includes correcting the exercise sheets for this exercise group.

You need to be employed as a tutor at one of the mathematical institutes to do a Practical Teaching Course.³ This requires an application at the end of the previous semester.

At the end of the Practical Teaching Course, you will have to hand in a portfolio. Your grade will be based on this portfolio and how well you did your job as a tutor.

External Internship Doing an internship during your studies can really boost your career. On top of a broadened horizon and some hands-on experience, you will be awarded credit points as well.

So how does it work? It is your responsibility to find an internship position in a field corresponding to your studies. The minimum duration is 6 weeks. After you have found a position, you



Figure 2: A proposed Practical Training Course on algebraic geometry: students harvesting fresh stalks from local fields.

need a university lecturer to approve of your internship and agree to act as your examiner.

Once you have completed your time at the company, hand in a written report about your experience. You will also be asked to present the contents of the report orally.

Programming courses There are also different kinds of programming courses, the details of which vary. There is typically one lecture per week, accompanied by programming exercises.

All mathematics courses you'll take during your master's degree can be classified into one of the abovenamed categories—except the master's thesis and the master's thesis seminar.⁴

Modules

To each mathematics course, there is an assigned "module code" that depends on its area (A–F), its type (Graduate lecture course, etc.) and its specific content. However, there are only certain predefined module codes available. As an example, Table 2 contains all module codes associated with area D (Geometry and Topology).

Each module can only be completed once: after passing a course you won't be able to take the exam for another course that shares the same module code. This may be an obstacle if two courses differ in content while module code

each module only once!

²It should be pointed out that the three introductory bachelor's courses "Analysis I", "Lineare Algebra I" and "Algorithmische Mathematik I" include two tutorials sessions per week, instead of the usual single session.

³As a nice side effect, this will also provide you with some money.

⁴The modules Master's Thesis, Master's Thesis Seminar, Practical Training Course and External Internship form the group G that we mentioned at the beginning of this text.

etry
y

Table 2: All modules in area D.

sharing the same module code. Then it is not possible to take the exam for both courses.⁵ This typically happens when it comes to Advanced Topics and Selected Topics, whose contents are almost always different even if they are assigned the same module code.

To every rule there are exceptions, and the beforementioned has two notable ones:

All Foundation lecture courses that belong to the same area (A–F) share the same module code. But you are nevertheless allowed to take the exam for all of them. However, towards the end of your master's studies, you can only choose one of these courses (per area) to count towards your final grade.

There are also three special modules, so-called additional modules. Let's say, for example, that you want to take the exam for an Advanced Topics course even though you have already passed this exact kind of Advanced Topics in an earlier semester. Then you can request from the Bachelor–Master Office (BaMa) to

treat the new lecture as an "Additional Advanced Topics". However, this can only be done once during your entire course of studies, and only if the differences in content are regarded as significant enough. It is, for example, not possible to take the exam for two "Advanced Topics in Geometry" and also for two "Advanced Topics in Topology". The same guidelines apply to "Selected Topics" and "Graduate Seminars".

When a lecturer offers multiple Advanced Topics courses in a row, they often make sure to use different module codes if possible. A professor may, for example, offer an "Advanced Topics in Algebraic Geometry" (V5A3) in one semester and an "Advanced Topics in Algebra" (V5A1) in the next semester to ensure that students can receive credit points for both courses.

Frequency & Content

There are numerous Advanced Topics and Selected Topics lecture courses each semester, but their contents seldom recur. If you find an Advanced Topics or a Selected Topics course that seems interesting to you, then you should definitely check it out. This also applies to Graduate Seminars.

When it comes to Graduate lecture courses and Foundation lecture courses, things get more complicated. Some lecture courses discuss fixed topics and are offered annually. This is especially the case for some Foundation lecture courses. But other courses are offered only irregularly, and their topics often depend on the lecturer.

The following list contains all Foundation lecture courses and all Graduate lecture courses, grouped up by how often they are offered.

Names Can Be Deceiving

Most modules have names stating what kind of course they represent. However, names can be deceiving.

Some modules have names like "Advanced Geometry I" or "Advanced Algebra I". These may seem like Advanced Topics, but they are not.

confusing names

Some modules have the same name except for a trailing "I" or "II". This often means that one lecture is a continuation of the other one, as is the case for "Algebraic Geometry I" and "Algebraic Geometry II".

exceptions

additiona modules

⁵Unless you use up one of your "Additional Topics", as we'll explain later.

⁶These three modules form the mysterious area X which we alluded to at the beginning of this text.

Annually

Foundation lecture courses: Algebra I; PDE and Functional Analysis; PDE and Modelling; Linear and Integer Optimization; Combinatorics, Graphs, Matroids; Topology I; Topology II; Scientific Computing II; Stochastic Processes; Foundations in Stochastic Analysis; GZ Analysis and Geometry on Manifolds; Graduate lecture courses: Algebraic Geometry I; Algebraic Geometry II; Nonlinear PDE II; Combinatorical Optimization; Approximation Algorithms; Chip Design; Algebraic Topology I; Algebraic Topology II; Numerical Algorithms; Numerical Simulation; Stochastic Analysis; Markov Processes

Not annually

Foundation lecture courses: Algebra II; Foundations in Representation Theory; Mathematical Logic; GZ Number Theory; GZ Computer-assisted Mathematics; Global Analysis; Geometry; Foundations in Analysis and Geometry on Manifolds; Graduate lecture courses: Representation Theory I; Representation Theory II; Advanced Algebra I; Advanced Mathematical Logic; Advanced Global Analysis I; Advanced Global Analysis; II; Real and Harmonic Analysis; Advanced Geometry I; Advanced Geometry II

Disclaimer: This list is based on experience from previous semesters and does not always reflect the officially required frequencies of these lectures. There is, for example, no official requirement for Topology I to be offered every year. So there could theoretically be a winter semester without Topology I in the future. In the Winter term 2023 for example, there was no Algebraic Topology II course.

Nevertheless, it may happen that one lecture is not a direct follow-up of the previous one. This occurs particularly if modules do not have a fixed content and are given by different lecturers. This is, for example, the case with the modules "Advanced Algebra I" (V4A5) and "Advanced Algebra II" (V4A6). Both these modules are meant for lectures on algebra and have no fixed content: their topics depend entirely on the lecturer that decides to offer such a lecture course.

One may wonder why there are two such modules, and not just one module called "Advanced Algebra", which is then offered by different lectures with different topics. This can be explained by the aforementioned rule about completing every module only once: The current situation allows students to take two Graduate lecture courses about "advanced algebra" for credit.

Advanced Topics can vary widely in their difficulty. Some of them are follow-ups to previous lectures, given by the same lecturer. These kinds of Advanced Topics can be quite challenging and usually require a fair amount of pre-existing knowledge. Other Advanced Topics are introductions to new topics, which might require fewer prerequisites.

Selected Topics can similarly vary a lot in their diffi-

culty. They have only half as much time as the other kinds of lecture courses to introduce new content since they only take place once a week. This lack of time can make things easier or harder for students, depending on the topic and the lecturer.

Secondary Subjects

If you are fed up with mathematics and you want to improve your knowledge in other subjects, then you can also take lectures in a secondary subject. Choosing a secondary subject is not mandatory, but it could be a valuable addition to your studies. Most students taking a secondary subject choose Physics, Computer Science or Economics; in these cases, it is clearly defined on BASIS which modules of the corresponding master's programmes can be chosen. Other cases usually need to be discussed with the BaMa on a case-by-case basis.

The Goal

You will have to collect a total of 120 credit points throughout your master's studies. You must take lectures (excluding Graduate Seminars and Practical Training Courses) from at least three of the six areas A–F. In one of these areas you have to gather at least 23 credit points, in another one at least 16 credit points, and in yet another one at least 9 credit points. You also have to take at least two Graduate Seminars. These seminars and your master's thesis plus master's thesis seminar will earn you an additional 48 credit points; the remaining 24 credit points can be collected in arbitrary modules, including more lectures, seminars and a secondary subject. More details about these regulations can be found at www.mathematics.uni-bonn.de/studium/en/study-programs/master-program-mathematics.

credits rule everything around you

"Advanced" Topics

more confusing

names

A Guide to Choosing Modules

Bonn offers a huge amount of mathematics courses. This can make it hard for freshmen to know where to start, and what to consider when choosing their courses. This article aims to provide a handy guide to choosing well. It is followed by a collection of study plans gathered from former master students. This text is written both for those who have already decided on which areas of mathematics they want to focus on and for those who are still undecided. We hope that the following advice will be especially helpful for students who are new to Bonn.

Figure 3: The introduction of sign conventions.

Choosing Courses

Lecture Courses

Let us first talk about lecture courses. By this, we mean Foundation lecture courses, Graduate lecture courses, Advanced Topics and Selected Topics.

In your first master's semester, it is best to start off with lecture courses from at least two different areas, so that you stay flexible enough in the coming semesters. For this, you should know which areas of mathematics you're interested in. Unfortunately, we cannot help you to figure this part out.

It is recommended to begin with Foundation lecture courses and progress to more advanced courses as time goes by. However, you have probably already deepened your knowledge in particular parts of mathematics during your bachelor's studies, e.g. the area in which you wrote your bachelor's thesis. In these areas, you may start off with more advanced lectures, e.g. Graduate lecture courses, from the beginning of your master's studies.

None of the lecture courses in Bonn formally require you to have passed certain other courses beforehand: you may check out any lecture course that you're interested in. There are, of course, informal prerequisites in terms of prior knowledge. It is, for example, generally considered a bad idea to take the lecture course

"Algebraic Geometry I" without previous knowledge about commutative algebra.

It's best to choose two "full" lecture courses—i.e. Foundation lecture course or Graduate lecture courses-in your first master's semester, but at the very most three such lecture courses. These lectures, their accompanied exercise sheets and tutorial sessions will already take up quite a lot of your time.

During your studies, you will also start taking Advanced Topics and Selected Topics. Their difficulties Advanced Topics vary a lot: some Advanced Topics and Selected Topand Selected Topics ics require vast amounts of previous knowledge, oth-

ers very little. They are, nonetheless, a good source of credit points. Advanced Topics typically cost less time than Foundation lecture courses and Graduate lecture courses since they have no weekly exercise sheets, but they still grant you 7 credit points (instead of 9 credit points). Selected Topics include only half as many lectures as Advanced Topics, but they still reward you 5 credit points.

You may already want to check out some Advanced Topics or Selected Topics during your first semester, as they are not only a good source of credit points, but even more importantly a good source of interesting mathematical topics. You might in particular want to careful!

Foundations

cover enough

¹One may even argue that one should have taken Algebraic Geometry I before taking Algebraic Geometry I.

go for it!

you need to

interests

diversify your

consider those Advanced Topics that are of an introductory nature, requiring little to no previous familiarity with the discussed topics.

The contents of the offered Advanced Topics and Selected Topics vary every semester and are almost never repeated. So if one of these lectures makes your heart flutter, then listen to your heart and try getting to know it better. Maybe you are meant for each other.

We want to remind you again to take lectures from different areas early on. You may already know which area you're most interested in and plan to focus only on this area. But you must not forget that you will need to have covered at least three different areas to get your master's degree. It happens regularly that people have to prolong their studies by some additional semesters just because they have not covered enough areas yet.

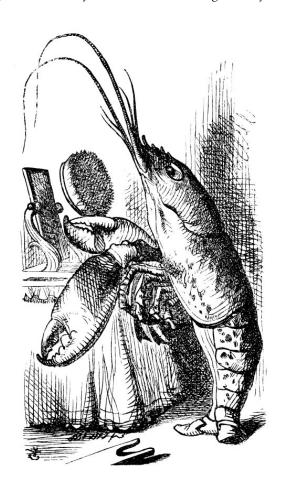


Figure 4: A student new to topology struggling to understand the hairy ball theorem.

Graduate Seminars

Let us talk about Graduate Seminars next. One usually starts attending them in the second semester.

when to start

To take part in a Graduate Seminar, it is obligatory to attend its preliminary meeting, which will probably take place towards the end of the preceding semester. In this meeting, you will learn more details about the chosen topic of the seminar and the planned talks. You can then decide whether you would like to participate in the seminar or not. You need to complete at least two Graduate Seminars for your master's degree but many people participate in more than just two seminars. Graduate Seminars are also a good way of practising your presentation skills and usually it is not very hard to get a good grade. In addition, they can be very helpful to find a master's thesis topic or supervisor.

Practical Teaching Courses

Another option for getting 9 credit points and usually a good grade is through a Practical Teaching Course. As explained above, this means that you work as a tutor for one of the mathematics lectures for one semester. This also provides you with some money.

€€€

Master's Thesis

Now is the time to address the elephant in the room: the master's thesis. You will need an advisor for your thesis and—most importantly—a topic. In order to find an advisor, reach out to a lecturer for one of the courses that you previously attended. If they are willing to supervise the thesis then they will typically suggest possible topics, taking into consideration your studies up to this point. Choose your topic wisely! You should have regular contact with your advisor during the writing of your thesis. To this end, it is recommended to attend the lectures and seminars offered by your advisor during this time. Finally, note that some students take an additional semester to finish their thesis.



Example Study Plans

From the next page onward we provide you with study plans of former master's students. These are meant to give you an idea of what someone's master's studies realistically look like. We'd like to point out some observations regarding these study plans beforehand: There is no standard study plan. Each plan is different, and the result of the unique choices made by the respective former master's student. Your own study plan will similarly be distinctly yours and will reflect the choices that you will make during your studies.

You will notice that the study plans differ in their length, taking anywhere from 3 to 8 semesters, with only around half of them taking 4 semesters or less. Your individual studies may end up shorter or longer than the study plans from the area that you're interested in. This depends on your individual choices and situation.

Note also that many students counted credit points from their bachelor studies towards their master's degree. Some of these students completed their bachelor's degree in Bonn and decided to already take master's courses in advance. Others did their bachelor's studies elsewhere but transferred credits they received for additional lectures anyway. If this might be possible for you, make sure to get in touch with the Bachelor–Master Office (BaMa). This may alleviate the workload during your master's degree significantly. Note however that

there is a deadline for this transfer of credit: You will have to apply for it by 1st December.

Let us now quickly explain how to read the study plans. We use the following abbreviations:

AT	Advanced Topics in
ST	Selected Topics in
GS	Graduate Seminar on
F	Foundation module

Each module starts with its module code and credit points in square brackets. Modules coloured in orange were counted for the final grade whereas modules coloured in cyan were not, e.g. due to not taking the exam, not passing the exam or a bad grade.

Modules in the row named "B" were brought in from the bachelor's programme. The total number of credit points earned in a semester is denoted at the end of the corresponding row. For the calculation of the credit points per semester the credit points of the master's thesis and master's seminar were split between all semesters during which the thesis was written.

1	F4A1 [9] F: Rep. Theory	F4D1 [9] F: Topology I	V4A1 [9] Alg. Geometry I	V5D4 [5] ST: Geometry	V4A5 [9] Adv. Algebra I	32
2	V4A3 [9] Rep. Theory I	V4A2 [9] Alg. Geometry II	V5D3 [7] AT: Geometry	S4A2 [6] GS: Rep. Theory		31
3	T5G1 + S5G1 [36]	F4B1 [9] F: Global Ana. I	MA-INF 4111 [6] CS: Intelligent Learning I			33
4	Master's Thesis + Seminar	S4D1 [6] GS: Differential Geometry	MA-INF 4112 [6] CS: Intelligent Learning II	Lang. course [6] French A2		30

Table 3: A study plan focusing on algebra, starting in a winter semester.

В	F4D1 [9] F: Topology I	V4A3 [9] Rep. Theory I	V4A4 [9] Rep. Theory II	V5A5 [7] AT: Rep. Theory	34
1	V4A1 [9] Algebraic Geometry I				9
2	V5A1 [7] AT: Algebra	V4B5 [9] Real and Harmonic Analysis	S4A2 [6] GS: Rep. Theory		22
3	V5B7 [7] AT: Analysis	S4B1 [6] GS: Analysis			13
4	T5G1 + S5G1 [36]	V5B7 [7] AT: Analysis			25
5	Master's Thesis + Seminar				18

Table 4: A study plan focusing on representation theory, starting in a winter semester.

В	V4A1 [9] Algebraic Geometry I	V4A5 [9] Advanced Algebra I						18
1	F4A1 [9] F: Rep. Theory	V5A3 [7] AT: Alg. Geometry	V5D3 [7] AT: Geometry	V4A1 [9] Algebraic Geometry I	V4A5 [9] Advanced Algebra I			23
2	S4D2 [6] GS: Topology	S4A2 [6] GS: Rep. Theory	F4D1 [9] F: Topology II	V4A2 [9] Algebraic Geometry 2	V5A1 [7] AT: Algebra	V5A4 [5] ST: Alg. Geometry	V5A4 [5] ST: Alg. Geometry	30
3	T5G1 + S5G1 [36] Master's	F4B1 [9] F: Global Analysis I	V5D1 [7] AT: Topology	V4A1 [9] Algebraic Geometry I	V5A4 [5] ST: Alg. Geometry	V5A2 [5] ST: Algebra		34
4	Thesis + Seminar	V4A2 [9] Algebraic Geometry II	V5D1 [7] AT: Topology					18

Table 5: A study plan focusing on algebraic geometry, starting in a winter semester.

1	F4D1 [9] F: Topology I	F4A1 [9] F: Rep. Theory	V4D1 [9] Algebraic Topology I	V5D3 [7] AT: Geometry	V5D4 [5] ST: Geometry	39
2	V4D2 [9] Algebraic Topology II	V4A8 [9] Models of Set Theory I	V5B8 [5] ST: Analysis	S4D2 [6] GS: Topology		29
3	T5G1 + S5G1 [36] Master's Thesis +	F4B1 [9] F: Global Analysis I	V5D1 [7] AT: Topology	S4D2 [6] GS: Topology	V5D1 [7] AT: Topology	40
4	Seminar					18

Table 6: A study plan focusing on topology, starting in a winter semester.

1	V4C1 [9] Combinatorial Optimization	V4A1 [9] Algebraic Geometry I	F1A1 [9] F: Set Theory	F1D1 [9] F: Topology I		36
2	V4C2 [9] Approximation Algorithms	V5C2 [5] ST: Discrete Mathematics	S4C1 [6] GS: Discrete Optimization	S4C1 [6] GS: Discrete Optimization	S4D2 [6] GS: Topology	32
3	T5G1 + S5G1 [36] Master's Thesis +	V5C1 [7] AT: Discrete Mathematics	S4F2 [6] GS: Stochastic Analysis	V5F1 [7] AT: Probability Theory		38
4	Seminar					18

Table 7: A study plan focusing on discrete mathematics, starting in a winter semester.

В	F4C1 [9] F: Linear and Integer Optimization				9
1	P4G1 [9] Practical Teaching Course	V4C1 [9] Combinatorial Optimization	F4D1 [9] F: Topology I		9
2	V4C2 [9] Approximation Algorithms	MA-INF 1312 [9] CS: The Art of Cryptography	F4F1 [9] F: Stochastic Processes		18
3	F4E1 [9] F: Scientific Computing I	F4B1 [9] F: PDE and Functional Analysis	F4D1 [9] F: Topology I	F4B1 [9] F: PDE and Functional Analysis	9
4	V5C2 [5] ST: Discrete Mathematics	S4C1 [6] GS: Discrete Optimization	V4B5 [9] Real and Harmonic Analysis	V4C3 [9] Chip Design	5
5	F4B1 [9] F: PDE and Functional Analysis	S5E2 [6] GS: Efficient Simulation	V4E1 [9] Numerical Algorithms	BA-INF 141 [9] Media Informatics: Big Data Analytics	15
6		V4E2 [9] Numerical Simulation	P4E1 [9] Practical Lab Numerical Simulation		30
7	T5G1 + S5G1 [36] Master's Thesis + Seminar				12
8					12

Table 8: Another study plan focusing on discrete mathematics, starting in a winter semester.

1	F1B1 [9] F: PDE and Functional Analysis	F4E1 [9] F: Scientific Computing I	V4E1 [9] Numerical Algorithms	V5E1 [7] AT: Numerical Methods in Science and Technology	V5A1 [7] AT: Algebra	18
2	F4D1 [9] F: Geometry I	V4E2 [9] Numerical Simulation	V5E4 [5] ST: Scientific Computing	V5E2 [5] ST: Numerical Methods in Science and Technology	S4E2 [6] GS: Numerical Simulation	34
3	P4G2 [9] External Internship					9
4	T5G1 + S5G1 [36]	V5B3 [7] AT: PDE	V5B5 [5] ST: Calculus	V5E3 [7] AT: Scientific Computing	Lang. course [6] Spanish B1	37
5	Master's Thesis + Seminar	S4F3 [6] GS: Applied Probability	V5E5 [7] AT: Numerical Analysis			24

Table 9: A study plan focusing on numerical mathematics, starting in a winter semester.

1	F4C1 [9] F: Linear and Integer Optimization	F4E1 [9] F: Scientific Computing I	P4G2 [9] External Internship	V4E1 [9] Numerical Algorithms	F4B1 [9] F: PDE and Functional Analysis	36
2	P4E1 [9] Practical Lab Numerical Simulation	V4E2 [9] Numerical Simulation	S5E1 [6] GS: Numerical Analysis	V4C2 [9] Approximation Algorithms		24
3	T5G1 + S5G1 [36]	V4C1 [9] Combinatorial Optimization	V5E5 [7] AT: Numerical Analysis	S4E2 [6] GS: Numerical Simulation	V5F4 [5] ST: Stochastic Analysis	40
4	Master's Thesis + Seminar	F4F1 [9] F: Stochastic Processes				27

Table 10: Another study plan focusing on numerical mathematics, starting in a winter semester.

В	V4C1 [9] Combinatorial Optimization	F1C1 [9] F: Linear and Integer Optimization		18
1	V4C2 [9] Approximation Algorithms	F4B1 [9] F: PDE and Modelling		9
2	S4F1 [6] GS: Probability Theory	F4B1 [9] F: PDE and Functional Analysis	V4F1 [9] Stochastic Analysis	6
3	F4F1 [9] F: Stochastic Processes	S4F2 [6] GS: Stochastic Analysis	MA-INF 1301 [9] CS: Algorithmic Game Theory and the Internet	24
4	P4G2 [9] External Internship	F4E1 [9] F: Scientific Computing I	V4F1 [9] Stochastic Analysis	18
5		V5F5 [7] AT: Applied Probability		19
6	T5G1 + S5G1 [36] Master's Thesis + Seminar			12
7		MA-INF 1218 [9] CS: Algorithms and Uncertainty		21

Table 11: A study plan focusing on stochastics, starting in a summer semester.

В	F4D1 [9] F: Topology I	F4A1 [9] F: Algebra I	CS [9] CS: Automata, Logic and Games (other university)		27
1	V4B5 [9] Harmonic Analysis	V4F1 [9] Stochastic Analysis	V5F5 [7] AT: Applied Probability	S4F1 [6] GS: Probability Theory	31
2	V4F2 [9] Markov Processes	F4B1 [9] F: Global Analysis I	V5F3 [7] AT: Stochastic Analysis	V5F1 [7] AT: Probability Theory	25
3	T5G1 + S5G1 [36] Master's Thesis + Seminar	S4B2 [6] GS: PDE			42

Table 12: Another study plan focusing on stochastics, starting in a summer semester.

Digital Services of the University

As a student at the University of Bonn, you will have access to several online services, some of which are presented here.

First of all, you will need your Uni-ID to register with all of these services. You will receive your Uni-ID together with your student ID and study documentation shortly after enrolment. Information about the setup of your Uni-ID and all the following services can be found at hrz.uni-bonn.de/en. If you encounter any problems, the staff of the HRZ will be happy to help you.

Uni-ID

GOsa

email

email aliases

Once you have received your Uni-ID you will have to go to GOsa,¹ the digital identity management system of the university, and set a password. The Uni-ID and corresponding email (see below) are the bread and butter for most of the digital services the university provides, as most of them can be accessed with one of the two.

The university provides you with an email address, namely Uni-ID@uni-bonn.de. This email address comes with 100 megabytes of space on the university's email server. You can access your emails with the online client² or with an email client of your choice. The necessary information about the configuration of a personal client can be found at hrz.uni-bonn.de/en/all-services/e-mail-calender-contacts/e-mail.

On GOsa you can define up to two email aliases. These aliases are alternate addresses that lead to the same account, i.e. a message sent to an alias will end up in the same inbox as the emails to the standard email address Uni-ID@uni-bonn.de.

You should check this email account regularly! The Bachelor–Master Office (BaMa) and the professors use it to send you important announcements.



Figure 5: Don't be that guy.

It is recommended to set up your account in an email client like Mozilla Thunderbird or Microsoft Outlook. You can find instructions on the website of the HRZ.

Another important web service is BASIS.³ This platform takes care of many organisational aspects of your studies in Bonn.

BASIS

- » It contains a course catalogue where you can find out which courses are offered in the current semester, and which courses were offered in previous semesters. The course catalogue for an upcoming semester is usually published towards the end of the preceding semester.
- » Registrations for exams, seminar and practical teaching courses are also done via BASIS.
- » Your transcript of records can be found on BASIS, and you can download it as a PDF file.

During the last summer semester BASIS underwent fundamental changes. There are still many bugs in the new system and many features do not work properly or are unavailable. Due to this the system is still undergoing major changes and the information here as well as in the chapter "Enrolment & Registration" might be subject to change.

There is also the website "studienservice". Here you can find many features for general study-administration including downloading official certificates of enrolment, viewing the status of your payments to the university and changing your residential adress.

studienservice

address change

eCampus

Another important web service is eCampus.⁵ This is a learning management system that can be used by lecturers to organise, distribute and collect materials. Most courses use eCampus, but many courses also provide a custom website in addition to their presence on eCampus.

The university offers a cloud storage service called sciebo⁶. It comes with 30 gigabytes of online space. Sciebo is not only available at the University of Bonn

sciebo

¹GOsa Identity Management: gosa.gosa.uni-bonn.de.

²Email web client: email.uni-bonn.de.

³BASIS: basis.uni-bonn.de.

 $^{^4}$ studienservice: studienservice.uni-bonn.de

⁵eCampus: ecampus.uni-bonn.de.

⁶Sciebo: uni-bonn.sciebo.de.



Figure 6: The sciebo logo consists of a cute green elephant. We won't display this logo here in fear of legal problems, but offer you an artistic rendition of another cute green elephant on a cloud instead.

but a total of 28 institutions based in North Rhine-Westphalia. This has some consequences for its usage: You cannot log in with your Uni-ID and your usual password. Instead, you need to register for this service at hochschulcloud.ncm/en/index.html. As part of the registration process, you will be redirected to a university page, where you will have to log in with your Uni-ID and password to prove that you are indeed a student at the University of Bonn. In the end, your username will not be just your Uni-ID but instead your full email address Uni-ID@uni-bonn.de.

Enrolling gives you access to a free Zoom license, which is a conference software we used frequently for online teaching during the pandemic. It is recommended to use Zoom through the university's Zoom portal. This way you will not have to register with Zoom: you can log in to the Zoom portal with your Uni-ID and usual password instead. You can use Zoom either via the online interface accessible through the university's Zoom portal, or via a standalone client installed on your computer. If you want to use the client then you can choose "Sign in with SSO" and then choose "uni-bonn.zoom.us" to log in to the client via the university's Zoom page.

There were also the services BigBlueButton and DFN-Conf, but these were rarely used for lectures because they cannot handle large numbers of participants. The Institute for Numerical Simulation (INS) offers a Jitsi server, which allows you to hold video conferences. However, with the pandemic being over, these are all rather unlikely to be used.

There is an arrangement which offers mathematics students to get some of Microsoft's products for free. Some of these products are Windows, Visual Studio, One

Note, Access, but not Microsoft Office. More information on how to participate can be found at fsmath.unibonn.de/other/software/MS_Azur.html.

Perhaps one of the most important services: there is free and (mostly) fast WIFI under the name eduroam all around campus. The login credentials are your email address Uni-ID@uni-bonn.de and your password. Eduroam is actually an international service, which will allow you to get free WIFI at universities around the world.

eduroam

Besides eduroam, there is also a VPN-based solution just for the University of Bonn, which allows you to log into the university network from outside.

VPN

More information about both eduroam and the VPN service can be found at hrz.uni-bonn.de/en/all-services/internet-network-access/wifi-eduroam.

Finally, you can find printers in the CIP-Pool in the annex. During the opening times you can print documents necessary for the study.

Don't forget @uni-bonn.de!

Zoom portal

Zoom

SSO

BigBlueButton

DFNConf

Iitsi

⁷Zoom portal of the University of Bonn: uni-bonn.zoom.us.

⁸Jitsi server of the INS: webinar.ins.uni-bonn.de.

Enrolment & Registration

In this chapter, we give a quick explanation on how to register for the various kinds of modules. We often refer to eCampus and BASIS, which are introduced in the chapter "Digital Services of the University", page 17.

Lectures

In general, no registration was needed to attend a lecture course, where by "lecture course" we mean Foundation, Graduate, Advanced Topics and Selected Topics lecture courses. You just go to lectures and try your best to keep up with the course.

However, some lecture courses will require you to sign up to them on eCampus to gain access to the provided materials. Courses can be found on eCampus in the following way: After logging in to eCampus (with your Uni-ID and usual password) go click on "Repository" on the top left, and then on "Repository - Home" on the upcoming drop-down menu.



Figure 7: Going to the front page.

This will lead to eCampus' front page. You can now select the current semester from the section "Courses" near the top of the page (you might have to expand the list via "All semesters" first). Alternatively you can also go to the bottom of the page, where you will find the section "Categories". Now you can select "Courses" here and then the current semester.

In the upcoming menu you can now search for "Mathematik" (German for *mathematics*) and after clicking on that select "Master Studies". There you will be presented with subdirectories, which contain the various mathematics courses. Now choose the directory for the course that you are interested in.

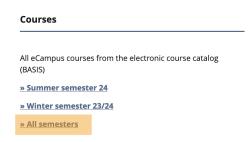






Figure 8: The section "Courses".

If the course is available on eCampus and open for enrolment, then you may click on the button at the end of the row to find the option "join". Clicking on it will make you join the course on eCampus.

Some courses may already be available on eCampus but not yet open for enrolment. In this case, you will have to wait until you are allowed to join them. But you may already look at them, yearning for the day that they finally become available to you.

In this case, you will need to have some patience and look for the course another day, or frantically refresh the eCampus page every few minutes for multiple days to not miss the moment the course goes online. This is a matter of personal preference.

Some courses will prompt you for a password when



Figure 9: Searching for "Mathematik".



Figure 10: "Master Studies" on eCampus.

you try to join them. You will be told the password (or where to find it) mostly during the first lecture. Some courses are open for enrolment only for a certain period.

Tutorial Sessions

Foundation lecture courses and Graduate lecture courses require you to do weekly exercise sheets. The handed-in solutions will then be corrected and discussed in tutorial sessions. For this, you will need to sign up for one of the provided exercise groups.

This is mostly done in the first lecture of the semester. There the lecturer will ask for preferences and you need to join the exercise groups on eCampus later:

For each exercise group, there is a corresponding virtual group through which this exercise group is organised. Some lecturers will make it possible to join one of these virtual groups trough eCampus at the beginning of the lecture course, while some other lecturers will instead require you to write an email with your preferred exercise groups. In this second scenario, you will then be assigned to one of the exercise groups and also added to the virtual group by the lecturer.



Figure 11: Joining a lecture course on eCampus.



Figure 12: A course not open for enrollment. (This is an old screenshot.)

There is only a restricted number of free places available for each of these virtual groups. So if you want to participate in a specific exercise group, then you should try to join said group while there are still spots left.

first come, first served

Exams

As there is no final examination in our study programme, every exam you take could potentially count towards your degree. Before you can register for any exam, you have to register once for the so-called master's examination. You have to do this within the first month after starting your studies in Bonn.

After having done so, you will be able to sign up for exams from December until January. The registration period depends on the course and if it is a written or oral exam. You will be informed about the registration period through emails of the Bachelor–Master Office (BaMa).

registration period

There have been great changes to the registration system during the summer semester 2025. As of september 2025 there are still many bugs in the system and it remains unclear when and how they are going to be fixed. Therefore take the following with a grain of salt and do not hesitate to ask the Fachschaft or the BaMa if you have any trouble registering. Most notably now you not only have to register for the exam of a given module but also to the corresponding exercise sessions. Registration for both is done via BASIS however since the summer semester 2025 this registration has been

virtual exercise group

^{&#}x27;This is a formal registration; you can find the respective form and more information about the master's examination at mathematics.uni-bonn.de/studium/en/study-organization/ calendar/registration-for-the-master-examination.

Figure 13: A course not yet available on eCampus.

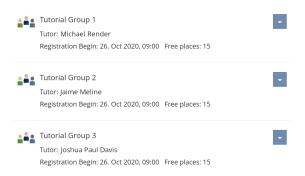


Figure 14: Virtual exercise groups on eCampus.

integrated into the "Studienservice". ² After logging in you might be tempted to click on "Register for exams" and indeed you are supposed to be able to register this way in the future. However one of the many bugs in the new system is that you will not find a button to register for the exercises here. Because of this you should use the second route. After logging in click on "course catalogue".

In the following menu select "Mathematik" and then "Master of Science Mathematics 2020" (the year depends on your version of the examination regulation, this might be a different one in future years).

Now select the kind of module you want to sign up for (for example "Elective Modules/Electives - Lecture Courses") and the respective area.

Here you can see your module and during exams registration period a button to sign up for it (a little door symbol with a green arrow). Note that for lecture courses you will see the courses and an exercise for the course in the list. You have to register for both the course and the exercise sessions.

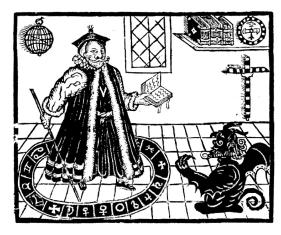


Figure 15: A desperate student summoning help for an upcoming exam.



Figure 16: The starting page of the "Studienservice".

Second Exams

For every lecture course there are two exams: a first exam at the beginning of the lecture-free period and a second exam at its end. This second exam is meant to give another chance to students who failed the first exam—if you pass the first exam then you will not be allowed to take the second exam. If you fail the first exam then you will automatically be enrolled for the second exam.³

two tries per semester

Students often need additional time to prepare for an exam and thus want to take only the second exam. Here is the problem: in Bonn, it is not possible to register only for the second exam! To take the second exam, you will have to register for the first exam and fail it on purpose, e.g. by not going to the exam, or by handing in blank or crossed-out sheets of paper.

²www.studienservice.uni-bonn.de/qisserver/pages/cs/sys/ portal/hisinoneStartPage.faces

³If you fail both exams then you will not get a third chance in the same semester. You will have to wait until the module is offered again in one of the future semesters to get your next try at the exam. If the lecture course comes with mandatory exercise sheets, then you will not have to do these again—BASIS will remember that you have already completed this part of the course before.

You have a total of four tries for each module: once you have failed four exams of the same module, you will not be able to take another exam for this module.

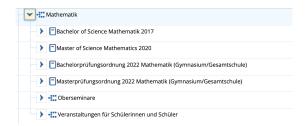


Figure 17: Finding "Mathematik" in the "Course catalog".

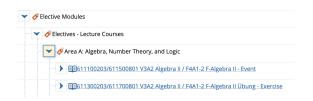


Figure 18: Navigating to your desired module.

Note however that once you have failed the first exam and are thus automatically enrolled for the second exam, you will not be able to withdraw from this exam anymore.

Graduate Seminars

To take part in a Graduate Seminar, you will have to attend its preliminary meeting, which often takes place at the end of the previous semester. There, you will be assigned to one of the talks.

At the beginning of the semester, you will then have to register for the seminar on BASIS: otherwise, you will not be able to get credit points for your talk. The deadline for the registration of Graduate Seminars is October 30th.⁴ Do not wait until the registration period for the exams to sign up for a Graduate Seminar—this is too late! The registration of Graduate Seminars works in the same way as for exams. Under "Elective Modules" go to "Electives - Graduate Seminars".

Practical Training Courses

If you plan to do a Practical Training Course (e.g. a Practical Teaching Course or a programming course in discrete mathematics or numerical mathematics), then you will have to sign up for it at the beginning of the

semester. The deadline is the same as for Graduate Seminars, 15th November. Let us repeat our previous warning: Do not wait until the registration period for the exams to sign up for a Practical Training Course—this is too late!

This registration is done on BASIS, in the same way as for exams and Graduate Seminars. Under "Elective Modules" go to "Electives - Graduate Seminars".

Additional Modules

There will probably come a point in time at which you want to use one of your additional modules, e.g. your "Additional Advanced Topics". This only happens if you want to take the exam for a current course but have already completed a course with the same module code in an earlier semester, or if you have already signed up for an exam with the same code in the current semester. You can then apply for one of these courses to be counted as one of your additional topics.

For this, you will have to demonstrate to the university that both courses are sufficiently distinct in content because the university does not want to give you credit points for relearning something that you have already learned once before. To this end, you will have to fill out an "Application for an Additional Module". The lecturer of the current course will have to sign this document: with this, they confirm that their current course is sufficiently distinct from the previous course. (You will probably have to explain to the lecturer what the previous course was about.) This document will then have to be handed in to the BaMa. If this Application for an Additional Module is successful (which it usually is) then the BaMa will add your registration on BASIS.

You have to hand in this Application for an Addition Module during the same time as the registration for this module would have usually taken place.

⁴This date can be found at mathematics.uni-bonn.de/studium/en/ study-organization/calendar/master-mathematics.

⁵The application form for additional modules: mathematics.unibonn.de/studium/medienordner-studium-1/dateien/ formulare/antrag_additional.pdf.

Rheinisch Bachelor Endenich	UNIVERSITĂT BONN						
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Kurs: Course:	V5A1 Adv.	Top. in Al	gebra	ebra			Anna Baker
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Figure 19: A filled-out application for an "Additional Advanced Topics", without signatures.

Equality, Health & Help

This page is supposed to give you an overview of different offers and contacts that you can turn to if you are experiencing discrimination, have exam anxiety or simply questions about your studies. If you ever find yourself not feeling well during your studies, do not hesitate to seek help!

Emergencies on Campus

- » If you or someone else are in an emergency situation on the campus or you need help, you can contact the Campus Security at any time under +49 228 73 7444. Each call will be handled confidentially.
- » During events from the Fachschaft there is always an awareness team who you can talk to when you feel uncomfortable. You can recognize them by the string lights they are wearing.

Student Counselling

» For any question concerning your studies or the start in Bonn, you can participate in the mentoring program for Master's students. You will be paired with a student who is already further along in their studies and who will help you with general questions. More details will be brought to you in the first week of the semester.

Gender Equality

- » The math department has a Gender Equality Committee consisting of students, PhD students, post docs and professors. They coordinate any gender equality and diversity measures of the department.
- » The committee has a website and a mailing list where you can get informed about offers and events. Feedback and participation is always welcome! More information can be found here www.mathematics.uni-bonn.de/de/ fachgruppe-mathematik/gleichstellungsag.
- » A group of students organizes the Tea Time with Women in Mathematics, a networking

event where you can meet other female or gender diverse mathematicians over a cup of tea, listen to interesting speakers and participate in discussions. More information can be found here: www.mathematics.unibonn.de/hcm/diversity-equity/tea-time-with-women-in-mathematics.

- » Additionally there are irregular events about gender equality, organized by the Fachschaft, the HCM or others. They'll usually be promoted via the equality mailing list mentioned above.
- In the annex of the math building there is a study room for female and gender diverse students.
 The room number is N1.002. This room is also being used for helpdesks, so you can only study there outside of the helpdesk hours.
- » In the Library of Mathematics there are gender neutral toilets for all students.
- » On the side of the university, there is the central Gender Equality Commissioner, Gabriele Alonso Rodriguez, who supports all employees and students at our university in topics concerning gender equality. Her email address is gleichstellungsbeauftragte@zgb.uni-bonn.de. On the website of the central Gender Equality Committee gleichstellung.uni-bonn.de/en you can find information about their offers and contacts.
- » If you have any issues or general questions in the context of gender equality in your maths studies that you first want to discuss with fellow students, there are Sophia Piacenza and Hannah Scholz from the Fachschaft standing by your side. Their email address is gleichstellung@fsmathbonn.de.

Study Room

Gender neutral toilets Gender Equality Commissioner

Discrimination

» The mathematics department has appointed ombudspersons that can be contacted at any time in any cases of inappropriate behavior or suspected sexual or other harassment. The ombudspersons are professors and scientific staff of mathematics with an open ear for the problems of students and employees

Ombudspersons

Tea Time with Women in Math

Campus Se-

Awareness

Mentoring

program

Gender

Equality Committee

curity

Team

22

in questions concerning equality. They are bound by secrecy. More information can be found here: www.mathematics.uni-bonn.de/de/fachgruppe-mathematik/fachgruppe-mathematik.

- » If you feel discriminated on the basis of your ethnicity, sexual orientation, religion or belief, disability or age, you can report that to the Administrative Office for Protection against Discrimination (Verwaltungsstelle Diskriminierungsschutz, website only available in German) or to the Anonymous Discrimination Reporter by the central gender equality committee gleichstellung.unibonn.de/de/angebote-und-beratung/beratungsangebote/diskriminierungsmelderdes-zentralen-gleichstellungsbueros-deruniversitaet-bonn. They will support you in planning the next steps.
- » If you encounter any problems with accessibility, you can report them here www.mnf.unibonn.de/de/fakultaet/feedback-box-zurbarrierefreiheit-an-der-mathematisch-naturwissenschaftlichen-fakultaet. At the math department you can contact Dr. Thoralf Räsch or the BaMa office for support concerning disabilities and chronic illnesses.

Mental Health

seek for support.

Your mental health is relevant during your math studies, because it affects your studies and your studies affect your mental health. Studying math can be very stressful and you may feel isolated sometimes, but there are several offers at the university that might help you. Taking care of your emotional well-being and mental health is always worth it!

The Fachschaft organizes so called "Mental Health Group Talks" to lower the stigma around the topic and to give you a space to talk about it with your peers. Usually you are not alone in your struggles and talking to others might already help you to navigate some of the stress of your studies. If you participate in the mentoring program you might reach out to your mentor. On our Website we have collected a list of various resources, contact persons and offers. You can especially find all relevant website links and email addresses there. Remember that it is always okay to ask for help and

The university offers psychological consultation to stu-

dents, and both the AStA and the Studierendenwerk offer a psychological counceling as well. These are first contact points, that are confidential and free of charge. In particular, your relatives, the university or your insurance company will not be informed that you are seeking counceling or why. After the counceling, you may be supported in finding a therapist or referred to other adequate contact persons. Furthermore, the Zentrale Studienberatung offers workshops and coachings on many different topics, like exam anxiety or self-confidence. Some of these are only offered irregularly or in German, but it can be worth checking out.

Psychological counceling

Workshops

General health

There is a number of things that you can call in sick for, both for physical or mental health reasons during your studies.

Calling in

- » If you are employed you can usually call in sick for a few days by telling your supervisor. As a tutor, it might be expected of you to find a replacement tutor or time slot. Starting with the third day of sickness, you need a medical certificate from your GP, called "Arbeitsunfähigkeitsbescheinigung".
- » The medical certificate can also be used to call in sick for exercise sheets. This is applicable if you are sick for at least a week, and you are struggling to get admitted to the exam. Note that you will still need to catch up on the contents that you missed.
- » If you are too sick to take an exam, you can call in sick from that too, as described on the website of the Bachelor-Master Office (BaMa). For that you need a different medical certificate from your GP, called "Prüfungsunfähigkeitsbescheinigung". The perk in calling in sick versus not attending the exam, is that you don't lose your tries, and can even get a chance at a third (usually oral) exam, if you would otherwise be unable to finish your studies in time.
- » If you have acute or chronic disadvantages for exams, i.e. a broken arm or some form of disability, it is possible to apply for compensation. You can for example get more time on written exams if you struggle with writing by hand. You will again need a certificate from a doctor to do so. You should take care of it as early as possible by contacting the BaMa so that a suitable solution can be found.

Group Talks

Reporting

tion

Discrimina-

Resources

What the Fachschaft?

Who We Are

The term Fachschaft Mathematik technically refers to all students enrolled in mathematics, i.e. it is the union of all matriculated students in the bachelor's, master's and doctoral programmes of mathematics, including you in particular. The German word "Fachschaft" etymologically means something like "body of students studying one subject". However, if someone refers to "the Fachschaft", like in "the Fachschaft writes the Freshmen Information" or "you can get minutes of exams from the Fachschaft", they mean a group of fellow students committed to helping others. In everyday usage, only a student involved in organising or executing Fachschaft-related tasks is called a "member of the Fachschaft". Some of them are elected members of the Fachschaftsrat (FSR) or the Fachschaftsvertretung (FSV). Others, however, get involved without being elected.

The word "Fachschaftsrat" roughly translates to "student council". The FSR is responsible for almost all actions that take place on behalf of the Fachschaft. That is the reason why in the following we always say: "The FSR does x". Please do not think, however, "the FSR" is some strange unreachable entity that operates high in the clouds. Your help is welcome and needed from day one—"the FSR", that can also be you! The FSR-meetings are weekly and public, attending and participating is simply a matter of showing up (more on that on the next page). You can read news from the FSR on the "loo paper", on the noticeboard in the annex on the walls facing the Fachschaft rooms (office of the Fachschaft and recreation room) on the ground floor of the annex, in the newsletter fsmath-news@listen.uni-bonn.de or on the website fsmath.uni-bonn.de.

Since we live in a bureaucratic state, the "student self-government" is regulated by law. There is a "parliament" elected by all mathematics students, called Fach-schaftsvertretung, and a "government" (the said FSR) elected by this parliament for doing the daily work. The word "Fachschaftsvertretung" roughly translates to "student representation". The FSV is the highest decision-making body of the Fachschaft. It is elected

every year—usually in December or in January close to the election of the student parliament (SP). The FSV not only elects the FSR, but also oversees its activities. For example, the FSV passes the budget of the FSR, deciding what money should be spent on and how much. Besides, the FSV takes all decisions for the Fachschaft that are more fundamental or of higher importance than the usual day-to-day work of the FSR. Meetings of the FSV do not take place regularly, but are always announced in advance.

One of the most important tasks for the FSV and the FSR is to represent the interests of the students vis-à-vis the administration and the professors of the university. This is done through various committees of the university. We represent you in these committees, such as selection committees for new professors, in financial planning or in the discussion of examination regulations. If you want to know more about the committees, what they are about and what we do there, you can come by or read about it on our website.²

The FSV meets far less frequently than the FSR, but its meetings are also generally open to the public, and new faces are always welcome.

Events

In addition to the Bachelor–Master Office (BaMa) and the Bonn International Graduate School of Mathematics (BIGS), the FSR and its Master Department organise several events to welcome the new Master freshmen. In the winter semester, the FSR and its Bachelor Freshmen department organise an extensive bachelor's freshmen welcome programme. If you speak German and are interested in getting to know the bachelor's freshmen you are welcome to join the bachelor's freshmen welcome, too.

In the last few years, the FSR together with the Master Department also organised a master's freshmen time, including a Welcome evening and a Wine and Cheese Evening. This will also take place this year, so make

FSR

¹It is really only the highest *elected* decision-making body; there is one body of the Fachschaft even higher, which is the FSVV (general assembly). Explaining the duties of the FSVV would go

beyond the scope of this article.

²Committees overview: www.fsmath.uni-bonn.de/en/about/ boards-and-committees.

sure that you come along, dates and details can be found in the introduction of this booklet.

Almost all the collective mathematics activities are also organised by the FSR: There is usually a Maths Party every semester and something that hardly any other Fachschaft organises: our own ball (or formal dance, as our American friends say). The Maths Ball is—as the name promises—an opportunity to enjoy a really nice evening of ballroom dancing in a suit and evening gown. There is also a short introductory dancing class before the event.



Figure 20: The summer dance ball.

Furthermore, every year there are several game nights with various special features on the programme, such as karaoke. Our ever-popular long-running favourite events also include the Wine and Cheese Evenings (WaCE, in German WuKA for "Wein- und Käseabend"). These events are well suited for chatting and getting in touch with other maths students.

Also, usually in the annual programme: a Mulled Wine and Cookie Evening (MulledWaCE), a Christmas party in winter, and a big end-of-semester barbecue and summer party at the end of the summer semester with all the mathematical institutes. Drinks are always available at cost price, and we provide snacks, biscuits and other small items for free.

Of course, you are always welcome to all of these events—they are organised for you!

Other Tasks

The AWD ("Anwesenheitsdienst", German for attendance service) is your first point of contact for all problems with lecturers, tutors and other people that you cannot or do not want to solve on your own, or where mediation by other students can be helpful. An email to info@fsmath.uni-bonn.de can help to solve a problem very easily.

contact person

office hours

We have office hours (AWD): During the lecture period, under normal circumstances, there is always someone in the office of the Fachschaft from Monday to Friday at 12 PM-2 PM. In the lecture-free period the office hours usually take place every Tuesday and Thursday at 12 PM-2 PM. But even if you have questions outside of office hours, the office is normally opened most of the day and you can still reach us by email. Especially important to you might be the email of the master department, master@fsmath.uni-bonn.de.

Meetings of the Fachschaft

To keep track of this pile of activity, we usually meet every Wednesday at 6 PM (*cum tempore*) in the seminar room 0.011 in the Math Center —sometimes with biscuits and always with a good mood. It is possible that they will be moved to the annex of the Math centre (or somewhere else entirely) in the middle of the semester, so make sure that you check our website before coming to a meeting.

You are always welcome to drop by and listen to one of our FSR meetings or to contribute something. The meetings are usually in German, however, we can also switch languages if you are more comfortable with English.

Participate!

Nobody has to be elected to get involved. As soon as you think this or that should be improved or you do not think your interests are well represented, you can help to make it better! There are many good reasons to get involved in the Fachschaft:

» It is fun to champion the interests of your fellow students. You will see how you make a difference through your own work and help others.

WaCE

Maths Party

Maths Ball

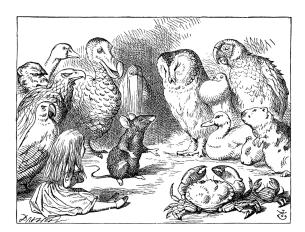


Figure 21: One of the weekly meetings of the FSR.

in the FSR at a time.³

- » This is your chance to actively participate in shaping Bonn's mathematics and to put your ideas and visions into practice. You will get practice solving nonmathematical problems beyond your curriculum.
- » The Fachschaft is a colourful bunch of great people from different semesters who are committed to helping others and always have an open ear for you and are happy to advise you in any life situation.
- » The work simply needs to be done. Without organisers there will be no parties and no other events. You will gain valuable experiences learning how to organise events, plan a budget etc.
- » This is the opportunity to learn how to convince others of one's ideas. At no point in your life can you gain these skills as safely as in student selfadministration.

The Master Department

The so-called "Master Department" represents master's students and organises a few events for them, in particular at the start of the semester. But also during the semester, we organise events like Master Teas or Master Thesis Talks from time to time, where former students talk about their thesis and the process of writing it. The Master Department was also heavily involved in the writing of this booklet. If you want to participate in the Master Department, you are always very welcome! You can either get in contact with us in person or write an email to master@fsmath.uni-bonn.de. There are a few additional departments of the Fachschaft, but there can only be elected officials from at most eight departments

³A list of all departments can be found on the website of the Fach-schaft: fsmath.uni-bonn.de/en/about/panels.html.

Structure of the University

Welcome to the jungle! Universities are structures that have grown over the past 1000 years. The one in Bonn was founded over 200 years ago and consists of more than 540 professors, 4,100 research assistants, 1,700 technical and administrative staff and 38,000 students. No wonder the organisational structure is not always immediately understandable.

Organisational Structure

First of all, the university of Bonn consists of seven faculties. You can think of faculties as areas of subjects, institutes and programs. There are also a few institutes that do not belong to any faculty: for example the Bonn-Aachen International Center for Information Technology, but also the Research Institute for Discrete Mathematics (DM).

A faculty, in turn, consists of institutes. Often several institutes are involved in a single degree program, which is why they are combined into teaching units. How can you tell that there are several institutes in mathematics? In almost every aspect of administration! For example, each institute has its own homepage—this does not make it any easier for you.

Bodies of Administration

On every organisational level, there is administration. And where there is administration, there is also a boss:

The university is headed by

Rectorate (one rector, one provost [a.k.a. chancellor], five vice rectors): takes all decisions not otherwise specified in the HG, e.g. the draft of the university development plan. This includes study programmes, research priorities and university organisation;

Senate (representatives of university teachers, students, academic staff): responsible for the constitution of the university and other decrees

	University of Bonn							
	Faculties						Institutes under	
Protestant Theology	Catholic Theology	Law and Economics	Medicine	Arts	Math. & Nat. Sci.	Agriculture	direct control of the senate: • Bonn Centre for University Teaching, • Bonn-Aachen Intern, Center for Information Technology, and others.	

Teaching unit mathematics							
MI	IAM	INS	HIM	BIGS			
Mathematical Institute	Institute for Applied Mathematics	Institute for Numerical Simulation	Hausdorff Research Institute for Mathematics	Bonn Internat. Grad. School of Mathematics			

Figure 22: Faculties of the university and the teaching unit of mathematics (excluding the DM).

and regulations, it approves the university development plan and influences the election of the members of the rectorate;

University Council (persons from important societal positions): advises and supervises the rectorate.

Faculties are administered by

Dean's Office (one dean and two or three vice deans): Among other things, ensures that the academic courses offered are complete, and is responsible for study and examination regulations:

Faculty Council: besides dean and vice deans, professors as well as representatives of academic staff and students are part of this committee. It decrees the regulations of the faculty.

Institutes are managed by

quite a number of directors, including one "managing director".

During reforms in the seventies, we students gained a certain amount of power in many decisions. The AStA

committees

faculties

institutes

Who runs what?

("general students' committee", "Allgemeiner Studierendenausschuss") and the student parliament are responsible for the entire university, while the student councils (Fachschaften) are responsible for the individual subjects (teaching units).

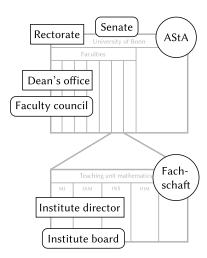


Figure 23: Administration.

Mathematics in Bonn: Partitioned into many Institutes

If you go a little deeper and ask not only about teaching but also about mathematical research in Bonn, the organization gets even more confusing. Today's structure is best explained by its history.

The Mathematical Institute (MI) and the Institute for Applied Mathematics (IAM) have existed for more than fifty years. In the Faculty of Law and Economics, Professor Bernhard Korte ran a department called "Operational Research", which was outsourced in 1988 to form its own institute, the "Research Institute for Discrete Mathematics". Then, it was largely separated from the Faculty of Law and Economics and now reports directly to the university senate. Professor Korte has donated his private collection of art and calculating machines to the "Arithmeum", a museum attached to the Research Institute for Discrete Mathematics.

The Max Planck Institute for Mathematics (MPI) was established around Professor Friedrich Hirzebruch in 1980, then a professor at the MI. It was first located in Beuel, but is now located in the city centre.

The Fraunhofer Institute for Algorithms and Scientific Computing (SCAI) emerged in 1992 from the Institute for Basic Methodologies in Information Technology of the former Society for Mathematics and Data Processing (GMD). In 2001, the GMD was merged with the Fraunhofer Society for Applied Research and the SCAI became an institute of the Fraunhofer Society.

Around the year 2003, the former IAM was divided into the present IAM and the Institute for Institute for Numerical Simulation (INS), so that numerical simulation did not dominate all other departments in the IAM. Since 2010, Professor Michael Griebel from the INS is also managing director of the SCAI, and the SCAI operates a branch lab at the INS.

This was the situation before establishing the Cluster of Excellence: Three institutes within the Faculty of Mathematics and Natural Sciences (MI, IAM, INS), another one outside the faculty (DM) and yet another two completely independent of the university (MPI, SCAI).

Then in 2006 the Excellence Initiative was founded,1 and the institutes mentioned above (except the SCAI) brought in the Department of Economics (and thus the Nobel Memorial Prize winner Professor Reinhard Selten). Together they received around 35 million euros in federal funding. In September 2019, the university received the Cluster of Excellence for a third time and the University of Bonn is now a "University of Excellence". The Hausdorff Center for Mathematics (HCM) was founded to coordinate the cluster. It is responsible for the administration of additional funds, public relations work, etc. Additional research is carried out by additional professors (Bonn Junior Fellows and Hausdorff Chairs) and by the Hausdorff Research Institute for Mathematics (HIM). It is structured similarly to the MPI: There are very few permanent staff members, and most researchers come for a guest stay (three weeks to six months) to be able to research and discuss with other mathematicians far away from the hustle and bustle of their home university.

Bonn is home to the only German winners of the Fields Medal: Professor Gerd Faltings and Professor Peter Scholze. Both are directors of the MPI.

All of this has resulted in a multitude of overlapping structures to this day: Some mathematics institutes belong to the faculty, others do not. The HCM is above all institutes in the teaching unit and also above the MPI, which is not part of the university. We hope you enjoy the cheerful confusion!

discrete

mathematics

Arithmeum

Max Planck

Institute

SCAI

Fraunhofer

¹In 2017, the Excellence Initiative has been reissued under the innovative new name Excellence Strategy.

Libraries

There are mainly two libraries of the university relevant to you: The Library of Mathematics and the MNL Branch Library.

The Library of Mathematics contains all the important books and journals that you need for your mathematical studies. This library is a combination of the libraries of the mathematical institutes and the textbook collection formerly stored in the MNL Branch Library. German students usually refer to it as the "Mathe-Bib" which is short for "Mathematik-Bibliothek".



Figure 24: Workplaces in the Library of Mathematics.

The textbook collection is mostly relevant for the first few semesters. Here you can find many copies of standard books for the most common lecture courses.

For your master's studies, the part that originated from the former institute libraries will be more important. There is the borrowing section on the ground floor and the reference section on the first floor. Here you will find virtually all the books you might need throughout your studies. As the name suggests, you can borrow books from the borrowing section and take them home for four weeks (see below for more details). In contrast, the books from the reference section can only be borrowed for at most one day.

For Graduate Seminars and especially for your master's thesis, the third part of the library will be of use for you as well: In the rear part of the ground floor, you can find the journal archive with more than 300 mathematical

journals. Most of these are in English, but there are also a few in German, Russian or French. This is the place to go to if you want to immerse yourself in cutting-edge mathematical research.



Figure 25: The MNL Branch Library ("Bauernbib") at the Campus Poppelsdorf.

Once you have found a book you will probably look for a place to read it. One option is to read it at home: in order to borrow a book, you need a library card for the ULB Bonn. You can obtain it at the MNL Branch Library at Friedrich-Hirzebruch-Allee 4. Apart from your student ID, you will need your identity card or your passport and a registration certificate.² From then on you can borrow all books with a yellow label (those are located on the ground floor) for four weeks. This period can be renewed on the website of the ULB Bonn.³ The books with white labels and the anthologies with red labels are part of the reference section and can only be borrowed for one day at most. In this case it is best to ask the library supervisor at the front desk. Journals usually cannot be borrowed at all, but you can copy them. You can find out about the current regulations on the website of both the Library of Mathematics and the ULB Bonn.

In the next sections, we will explain the daily life in the library. All over the library, there are quiet workspaces where you can go to research your master's thesis,

quiet workspaces

journal archive

¹Website of the Library of Mathematics: bib.math.uni-bonn.de.

 $^{^2} Details \ on \ getting \ a \ library \ card \ are \ available \ at \ www.ulb.uni-bonn.$ de/en/using-the-library/library-card-and-user-account.

³Website of the ULB Bonn: ulb.uni-bonn.de/en. Details on borrowing conditions can be found at ulb.uni-bonn.de/en/using-

group workspaces

print, copy, bind

work on exercises on your own or to study for exams. Keep in mind that you are supposed to stay quiet in the entire library. If you want to collaborate on an exercise sheet or discuss your lectures together (which is really advisable) you can use the group working space in the foyer of the Library of Mathematics or in the MNL Branch Library. Here you will usually find a couple of free seats and often also fellow students that you can approach if you are completely stuck on a particular exercise. Alternatively, you can meet in the backyard behind the MZ. There are many tables and blackboards that you can use to work together and if the weather is good you will find many other Math students that also try to solve their exercise sheets there. Starting with this term, the toilets in the Library of Mathematics are gender-neutral.

The opening hours of the Library of Mathematics are 8:30 AM to 10 PM on weekdays and 10 AM to 7 PM on Saturdays. On Sundays it is closed, but you can go to other libraries like the MNL Branch Library, which is open every day from 8:00 AM to midnight. If you are just looking for a place to study, or need a change of scenery, you can also go to one of the other many university libraries in Bonn.

Maths students can print, copy and bind lecture scripts here for free (apparently copying is not free, but you should always check the current situation from time to time). Right now, only the copying and binding is in the library, the printing moved to the locker room. Free printing is also possible in the CIP-Pool in the annex at the moment. Make sure to check their opening hours if you want to print something there.



Figure 26: The ground floor of the Library of Mathematics.

the-library/borrowing-and-ordering



First Floor

- Non-lending collection, theses, historical works, rare journals J–Z
- 4a Omnibus volumes 1–3473
- 4b Omnibus volumes from 3474 onward, collected works, reference books
- 4c Copy machine, scanner, printer
- 4d Nova room

Figure 27: The first floor of the Library of Mathematics.

Mathematical Buildings in Bonn

This chapter aims to inform you about important buildings that are used by mathematical institutions.

History

The Mathematical Institute (MI) and the Institute for Applied Mathematics (IAM) used to be on Wegelerstraße for more than 50 years. In 2003, the Institute for Numerical Simulation (INS) was separated from the IAM; both stayed in the building at Wegelerstraße 6.

The Max Planck Institute for Mathematics (MPI) was founded in 1980 by Friedrich Hirzebruch, and it was first located in Beuel. It moved to Münsterplatz in the city centre of Bonn in 1999, into the upper floors of the building complex that was previously used by the post office ("Postamt"). The entrance to the institute is in a side street (Vivatsgasse).

The Research Institute for Discrete Mathematics (DM) was founded by Professor Korte in 1988. Its original location was on Nassestraße, around the corner from the present location. The new building was finished in 1997 on Lennéstraße. It includes a museum of historical calculating machines ("Arithmeum"); the construction of the building was financially supported by the Federal Government after Professor Korte's private collection of calculating machines had been donated to the state.

The Fraunhofer Institute for Algorithms and Scientific Computing (SCAI) is located in Schloss Birlinghoven in Sankt Augustin, which is next to Bonn. This location is shared with other institutes of the Fraunhofer Society. The SCAI also operates a branch lab at the INS since 2010.

In the year 2009, the MI and the IAM moved into their current home at Endenicher Allee 60, while the INS stayed on Wegelerstraße. This imposing baroquestyle building was used by the Landwirtschaftskammer Rheinland until 2004. The building was completed in 1916, when it was one of the largest building complexes in the city of Bonn. There is also a smaller new building (annex) from the 1970s in the backyard; it is used by the mathematical institutes and also by the Fachschaft.

The new campus area in Poppelsdorf between the MNL Branch Library and the Mensa was largely completed in 2018, when the INS (as well as the Department of Computer Science) moved into its new home.

Current Situation

In the following, we will list all buildings you definitely have to know about, either because your modules will take place there, or because they are home to some institution. Occasionally some lectures—and often exams—take place in other buildings.

The short labels in brackets are the ones you will find on BASIS.

Mathematikzentrum (MZ) This is the largest and most important building for mathematics in Bonn; its address is Endenicher Allee 60 (EA60/MATH). The bus stop *Kaufmannstraße* is directly in front of it; but depending on when the bus is coming, walking from the central station may be faster (15 minutes). There are also bicycle racks on the backyard (accessible through the small gate to the left). Home to the Bachelor–Master Office (BaMa), the MI, IAM and the Library of Mathematics. This is also where most seminar rooms are; their label is SR *x* where *x* is the room number. Finally, there is the *Lipschitzsaal* (named after the German mathematician Rudolf Lipschitz), which is occasionally used for special events.



Figure 28: The Mathematikzentrum (MZ).

Annex to the MZ Small building behind the MZ, accessible through the backyard. It is home to the Fachschaft and the recreation room. There are also a CIP-Pool and a few more seminar rooms with the label N *y*, where *y* is the room number.



Figure 29: The annex to the MZ.

Wegelerstraße 10 (We10) This building is a walk of six minutes away from the MZ. The closest bus stop is *Haydnstraße* (coming from the central station). There are also a few bicycle racks in front of the building. This is the building where most large lectures (like foundation modules) take place. There are three lecture halls in this building, listed in descending capacity:

- » Großer Hörsaal (Gr. HS): "large lecture hall";
- » Kleiner Hörsaal (K1.HS): "small lecture hall";
- » Zeichensaal (ZS): "drafting room".



Figure 30: Wegelerstraße 10 (We10).

Arithmeum This building is home to the Research Institute for Discrete Mathematics (DM). Its address is Lennéstraße 2 (Le2). This is where all modules (lectures

and seminars) of Area C (discrete mathematics) take place. This place is a bit annoying to commute to from the MZ because it lies on the other side of the railway. The quickest way would be to ride a bicycle, using the pedestrian subway at Poppelsdorfer Allee; alternatively, you can go by bus to Central Station and then continue walking for nine minutes. The rooms in this building are:

- » Gerhard-Konow-Hörsaal (G-K HS): "Gerhard Konow lecture hall" (named after a German politician who promoted research in discrete mathematics);
- » Seminarraum (SR DM): "seminar room".



Figure 31: The Arithmeum.

Villa Maria This building is direct to the left of the MZ (Endenicher Allee 62). It is home to the Hausdorff Center for Mathematics (HCM) and the Bonn International Graduate School (BIGS).



Figure 32: The Villa Maria.

Friedrich-Hirzebruch-Allee 8 This building is on the newly named Friedrich-Hirzebruch-Allee, opposite of the building of Computer Science (*Informatikzentrum*). It is located on the newly built campus area south of the MZ. It is home to the Institute for Numerical Simulation (INS) and a branch lab of the SCAI.



Figure 33: Friedrich-Hirzebruch-Allee 8.

Vivatsgasse 7 Hidden but large building complex in the city centre next to the Münsterplatz—you wouldn't notice it if you didn't know about it because only the entrance is at ground level. Home to the Max Planck Institute for Mathematics (MPI). This building is not open to the public, but it is very cool to visit if you have an appointment there.



Figure 34: Vivatsgasse 7.

Nine circles of algebraic geometry This structure north of the MZ is where the algebraic geometers gather. During an otherwise quiet night, one can hear students' screams howling through the air.

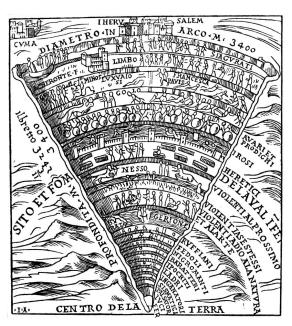


Figure 35: The nine circles of algebraic geometry.

All about Money

Financing your studies and the funding of the university, while not the most exciting topics, are nevertheless very important topics in the everyday life of students. At this point, we would like to give you some tips on financing your studies and on scholarships and then give a brief insight into the funding of the university and especially of Mathematics in Bonn. –test

Financing Your Studies

There are five major funding options for your studies: parents, financial aid, loans, scholarships and personal income. In this text, we want to give a brief introduction into each option and link to further resources.

Parents In Germany, parents are legally obligated to finance their (adult) children's education up to a first vocational qualification. As such, parents are generally obliged to pay maintenance until the end of their children's studies.

BAföG If your parents—as well as your spouses/partners—are unable to support you due to low income, the German state provides a need-based financial aid: BAföG (German abbreviation for Federal Training Assistance Act). Half of the BAföG financial support is usually a grant, the remaining half an interest-free loan.

As a rule, every student who

» has

Who can claim

BAföG?

- > German citizenship
- or prospects of remaining in Germany and is already integrated into society
- > or a partner/parent that fulfils one of the said criteria
- » starts their studies before the age of 35
- » and can prove "suitability"

is entitled to BAföG. As the legal regulations are very complex, it is advisable to contact the BAföG office at an early stage to find out whether you are entitled. Visit studierendenwerk-bonn.de/en/financing for further information.



Figure 36: A student filling out their BAföG application.

Student Loans If you are not entitled to BAföG, student loans might be an option for you. These are loans with a zero or low interest rate directed at students. Be aware that loans are generally unsuitable as a long-term main source of funding due to the high danger of overborrowing. However, in individual cases with short-term financial needs (e.g. additional requirements during the examination period), a student loan can be useful, as opposed to extensive jobbing, as well as for top-up requirements to cover a comparatively small financing gap.

loans: only short-term funding

There are various student loans offered. Many are directed at a specific group, e.g. at students who need a loan to finish their degree. The non-profit organisation CHE offers a yearly report testing different student loans.¹

In case of a short-term financial emergency the AStA and the student assistance fund each offer an interest-free loan.²

emergency loans

Scholarships Besides BAföG and loans, you can also finance your studies with scholarships that you do not have to pay back at all. A common misconception is that only the best students have a chance to do so. But this has not been the case for a long time now.

¹CHE student loan test (in German): che.de/download/che-studienkredit-test-2024.

²Student aid fund: asta-bonn.de/en/services/consultationsand-services/student-assistance-fund.

The selection criteria are very diverse. For example, commitment to an honorary position can be the deciding factor. Or you might be looking for a scholarship for a special target group, such as mothers studying or working towards a doctorate. Don't be afraid to apply for a scholarship! On average, more than a third of scholarship applicants receive the funding for which they have applied.

Some various organizations and foundations offer scholarships, many directed specifically at international students. Depending on the scholarship, these include monthly financial support and/or non-material support. The largest group of providers for scholarships are the 13 "Begabtenförderungswerke" supported by the Federal Ministry of Education and Research. They represent important societal groups and have, for example, a political, religious or economic background. There are also many other scholarship providers in Germany: Smaller foundations often focus on particular subjects or cities. The University of Bonn itself (besides other institutions) offers the so-called "Deutschlandstipendium". The German Academic Exchange Service (DAAD) runs a comprehensive database of numerous scholarships and offers further information.4

Personal Income Almost two-thirds of all students have part-time jobs. For half of them, their job is necessary to finance their living.

The university and research institutes offer jobs as academic assistants. For master's students these positions are called "wissenschaftliche Hilfskraft" (WHF) although in everyday language the abbreviation "SHK"—which technically only describes academic assistants without a Bachelor's degree—is used more frequently. Typical assignments of a research assistant are assisting in software development (e.g. at the Research Institute for Discrete Mathematics (DM) or the Fraunhofer Society), leading a tutorial at a mathematical institute or supervising the Library of Mathematics. Job offers are usually posted on the website of the institution you apply to or on the central database of the university.⁵

Outside the university, typical student jobs are working in gastronomy or pubs, as a cashier in a supermarket or helping out at fairs or Christmas markets. More mathematics-related student jobs can be found for example in consulting, or software development firms. The StwB runs a job exchange for student jobs.⁶

Be aware that there are many regulations regarding work that you have to pay close attention to, especially as an international student. In the following paragraphs, we give a short overview of this complex topic, but we are, of course, not lawyers, so you have to do further research on your own. We have linked to further information in the footnotes.^{7,8}

regulations

Insurances Having health insurance as a student is mandatory in Germany. Most of you will have already dealt with this as you have to show proof of your health insurance coverage no later than at registration in the Studierendensekretariat of the university. The website of the university on this matter covers this topic (and many other topics) quite well.⁹

Further compulsory insurances that you generally have to pay are unemployment insurance and pension insurance. Usually, paying for these compulsory insurances is mandatory and your contribution is based on your salary. However, there are employment relations in which you are exempt from paying some or all of these social insurances.

In addition to these mandatory social insurances, you can choose to take out further insurances. Liability insurance is strongly recommended. If you are not already covered through your parent's household insurance, taking out your own is advisable. Further insurances such as a bicycle theft insurance might make sense in individual cases, but be aware of overinsuring!

Mini job Most students work in an employment relationship called marginal employment or mini job which is characterised by either short duration (e.g. you work only outside of the lecture period) or low absolute level of earnings, i.e. you

short-duration

academic

assistants

³University of Bonn Deutschlandstipendium: unibonn.de/en/studying/consultation-and-service/ financing-and-support/the-deutschlandstipendium/ deutschlandstipendium.

⁴DAAD scholarship database: www2.daad.de/deutschland/ stipendium/datenbank/en/21148-scholarship-database.

⁵Student job offers of the university (in German): uni-bonn.de/de/universitaet/arbeiten-an-der-uni/ stellenangebote/stellenangebote-fuer-studierende-promovierende-und-praktikant-innen.

⁶StwB job exchange: jobben.studierendenwerk-bonn.de.

⁷Information from the Federal Ministry of Education and Research: study-in-germany.de/en/plan-your-stay/working-while-studying/part-time-job 71027.php.

⁸Information from the DAAD: daad.de/en/studying-in-germany/ work-career/side-jobs/.

⁹Website on Organizational Matters Related to Your Stay at the University of Bonn: uni-bonn.de/en/studying/internationalstudents/planning/planning.

low income jobs

minimum wage

earn at most €520 a month with all of your mini jobs combined. You can also be employed in a mini job by private households, e.g. for cleaning or gardening.¹⁰

Generally, while working on a mini job, you do not contribute to social insurances besides the obligatory membership in health insurance and a reduced contribution to pension insurance and you do not pay any income tax.

Note that Germany introduced a minimum wage in 2015. As of October 2024 it stands at €12.41 per hour and will be increased to €12.82 in 2025. Working as a student at the university, you will get €15.15 per hour if you have a Bachelor's degree.

Working student If a job does not classify as a mini job, you might be classified as a working student ("Werkstudent"). This is the case if the job is only a minor matter and you spend your time mainly studying which is decided by the "20 hours rule": During the lecture period you may only work 20 hours or less a week besides your university studies; there is no restriction outside of the lecture period.

If you count as a working student, you do not have to pay any additional contributions to health or unemployment insurance. But you have to pay the full contribution to pension insurance and—in theory—income taxes, although most working students do not earn enough and are therefore tax-exempt.

Regulations for International Students There are legal regulations 11 covering the number of hours international students are allowed to work. These regulations are very strict. It is important to be aware of them: you may even be deported if you infringe them!

If you are from a member country of the European Single Market, ¹² you are entitled to work as many hours as you want, without needing a special permit.

If you are from another country, then you are allowed to work 120 full days or 240 half days per year and you are not allowed to undertake self-employment. Anyone who wants to work more than this must seek permission from the Agentur für Arbeit¹³ (local employment agency) and the Ausländeramt¹⁴ (immigration office). It will depend on the level of unemployment in a federal state. However, this rule does not apply to academic assistants. There are no restrictions on these jobs at the university. Nevertheless, you must inform the immigration office if you want to work more hours.

Semester Fees

Every student ¹⁵ has to pay fees each semester. These fees are paid to the StwB—which runs the Mensa and dormitories—and the student body. The amount of fees the student body receives is decided by the student parliament (SP) on a semesterly basis. In Table 13 we compiled a list of which causes are benefiting from your fees. As you can see, none of the fees are paid to the university; this really means that your fees are no "tuition fees", which is a common misconception, because tuition is covered by the state (see next section). An updated version of this table can be found on the AStA webpage¹⁶.

Most of your fees to the student body are used for the semester ticket, which is basically a Deutschlandticket (Germany ticket) which allows you to use regional public transport in all of Germany. ¹⁷ University sports and social services such as daycare for students with children are also supported by semester fees. Last but not least, semester fees are the main source of income for the Fachschaft. Thank you very much for your support!

semester ticket

¹⁰Job exchange for mini jobs from private households: haushaltsjobboerse.de/englisch.

¹¹Regulations for international students (from DAAD):
 static.daad.de/media/daad_de/pdfs_nicht_barrierefrei/
 in-deutschland-studieren-forschen-lehren/employment_
 january_2017.pdf.

¹²The European Single Market comprises the 27 member states of the European Union and (with exceptions in aspects other than labour) Iceland, Liechtenstein, Norway and Switzerland.

¹³Agentur für Arbeit Bonn: arbeitsagentur.de/en.

¹⁴Immigration Office Bonn: bonn.de/microsite/en/services/ formalities/immigration-office-bonn.php.

¹⁵Actually, one can be exempted from some parts of the semester fee in case of social hardship, severe illness or having a holiday semester.

¹⁶ asta-bonn.de/en/departments/finance-department-andaccounting

¹⁷Deutschlandticket: int.bahn.de/en/offers/regional/
deutschland-ticket

	Semester fee in €
StwB	115.00
student body	
to the AStA	14.00
to the Fachschaft	2.25
to social services	0.50
to the student aid fund	0.01
to the semester ticket	208.08
to the transit ticket refund	0.01
to university sports	1.50
to the culture ticket	3.00
total	345.07

Table 13: Semester fees winter semester 2025/2026.

University Funding

Most of the university's funds are distributed by the rectorate and the dean's offices without student influence. However, quality improvement funds ("QVM") are a special exception. These were introduced by the state as compensatory payments for the abolition of tuition fees in the winter semester 2011/12. The amount of funding is based on the former income from tuition fees. The purpose of the quality improvement funds is the improvement of teaching and study conditions. To do this justice, a committee discusses the use of the funds. It consists of four students and four non-student members.

The committee discusses proposals on how to spend the funds. These proposals are passed on to an allocation committee, responsible for all proposals within the faculty, which then decides on their implementation. This allocation committee examines whether the individual expenditures are actually used to improve teaching or the learning situation.

In mathematics, the following projects, among others, are currently being financed from quality improvement funds:

The number of tutors employed by the institutes to lead exercise groups has been increased by approximately one third. Also, tutors for the Help Desk for the basic lectures of the bachelor's degree programme and additional student assistants helping with the preparation of lecture notes are financed from the quality improvement funds. The opening hours of the CIP-Pool and the Library of Mathematics could also be extended by additional student assistants.

During the lecture-free period, various events take place which are financed with quality improvement funds: Revision courses for the beginners' lectures ("Repetitorien") to prepare students for writing retaken exams, programming courses to prepare students for programming exercises in the first two semesters, LATEX courses, which could be interesting for everyone who is attending a seminar, or who wants to write a thesis, as well as tutors' training to improve the quality of the exercise groups.

Students who are writing a bachelor's or master's thesis can apply for a (partial) reimbursement of their printing and binding costs at the Bachelor-Master Office (BaMa).

If you have further ideas to improve your studies, please write to info@fsmath.uni-bonn.de.

courses and tutors' training

thesis: printing cost reimbursement

additional tutors and SHKs

quality

funds

improvement

Living in Bonn

Most of you have probably thought about where to reside in Bonn before. It can be very difficult to find a decent flat in Bonn; it might seem like either you have to pay a lot of money or move to the outskirts. In this text, we want to show you some possibilities and strategies on how to find accommodation in Bonn.

Living outside of Bonn

First off: If you *already* live in the vicinity of Bonn, staying at home is probably the easiest way to go. Should you be have trouble finding anything inside the city itself in a timely manner, the outlying smaller communities tend to have much cheaper housing and less demand. Should you choose this option, it is recommended to look for something with a clear and easy public transit to Bonn (most regional public transport is free for students).

Pro: If you can use your semester ticket for your commutes, this will probably be the cheapest option.

Con: Transit means a loss of time.

Do not forget that this option means that you still have to get up quite early if you have a lecture in the morning. You also lose a bit of flexibility because you cannot go on adventures with your fellow students spontaneously, and you might have to leave early due to the transport schedule. So making new friends will be a lot easier if you actually move to Bonn.



Figure 37: Before renting a flat, try to have a look at it to prevent unwanted surprises.

Dormitories

Dormitories

The golden rule: Apply as early as possible! It is also better if you introduce yourself in person to the respective offices. The employees can get a much better impression of you in a personal conversation.

Pro: The dorms are cheap, and some of them are quite big—a rarity in Bonn! A few of them are located very close to the university, there is one right next to the Mensa CAMPO for example.

Con: The quality of the dorms can be rather modest, which is however usually sufficient for students.

So considering price-performance ratio, this is probably the best solution - of course there is only a limited number of slots.

Private Housing

The same thing as before applies here: Start searching early—there are a lot of other people looking for flats, too! It tends to be easier to find a flat *during* the semester.

Pro: There are very good and different flats which may offer just what you are looking for.

Con: Sometimes way too expensive, make sure you are not getting ripped off! Some landlords will not accept students because most of them do not have a stable income.

Important: If you have good contacts, it will be a lot easier to find something. You can profit from asking in your circle of acquaintances if somebody knows about flats becoming vacant.

Shared Flats

Again you can find a lot of offers on the internet. If you don't speak German, you should know that the

¹For example at www.wg-gesucht.de.



Figure 38: Private housing can be quite expensive.

German word for shared flats is "Wohngemeinschaft", often abbreviated to "WG". Of course, it is even more difficult to find a flat if you want to move in with friends or a partner. The first step is to think about what you are looking for: Do you just want a crash pad or do you want to be friends with your new room-mates?

Pro: The more the merrier—bigger flats are often cheaper.

Con: You should agree on financial matters early on before moving in. Also, make sure to clarify the ownership of shared items with your room-mates. The legal relationships specified in the rental contract are worth a detailed look. Subtleties can have an enormous impact! It is very helpful to work with a guidebook on the internet.

it is the location of a "Verbindungshaus", the equivalent of a frat house, can also help identify fraudulent advertisements.

Finding the right place to live is exhausting and filled with setbacks. Don't lose heart! The more persistence you show, the earlier you will find a place.

Stay persistent!



Figure 39: A student of analysis hearing the shape of their neighbour's drums.

Setting up a shared flat

Fraternities

You might see suspiciously cheap housing offers while searching for a place to live, often emphasising a "sense of community" or looking for male applicants only. These offers are often from so-called "Studentenverbindungen", a type of student association that might be best compared to fraternities in the US.

If you don't know what a "Verbindung" is exactly, you should inform yourself thoroughly, as many of them share a conservative or even right-wing ideology. Unfortunately, there is not much information in English available, but the Wikipedia article² is a good starting point. Looking up the address to find out whether

²Wikipedia article "Studentenverbindung": en.wikipedia.org/wiki/Studentenverbindung.

Leisure Activities

University Sports

Most of you have probably chosen Bonn because you have heard that our mathematics department has an excellent reputation. However, university sports in Bonn are outstanding, too.

University sports are characterised by a very diverse range of activities from aerobics to Zumba. A semester ticket costs €10. For some sports, you will have to pay an additional fee. The variety of sports offered guarantees that there is something for everyone. University sports include ball games, water sports, martial arts, fitness and weight training, health sports and dancing; each split into sub-sports.

The fitness studio "Halle 5", which is part of the university sports facilities, is also very popular. There you can enjoy guided endurance and strength training with the aid of modern fitness equipment. They offer different options which you can find on their website.¹

Almost all sports courses take place in the university's sports facilities. Most of them are located behind the former Faculty of Education (Römerstraße 164) and on the Venusberg (Nachtigallenweg 86). Both sports facilities are easily accessible by public transport.

In addition to what is offered during the semester, university sports also offer a variety of activities during the semester breaks as well as the opportunity to participate in sports trips offered by universities all over North Rhine-Westphalia.

Should you decide to take part in one or more sports courses, it is recommended that you check the university sports website early enough.² As some sports are very popular and the number of participants is limited, it is necessary to register online in advance. This should be done on the first day of registration at the earliest possible time because many popular courses are fully booked within minutes.

If you would like to participate in a sport for which you would need a partner but you haven't found one yet, don't be put off: On its website, the university sports

¹You can learn more about this here: sport.uni-bonn.de/en/ sports-offers/fitness-studio-halle-5. offer a so-called sports partner exchange where you can search for the right sports partner for each sport.

For many students, university sports are a muchneeded break from their usually stressful and physically inactive studies and a good opportunity to get to know many nice people.



Figure 40: A student taking part in a socially distanced game of flamingo croquet.

Culture

However, sports is not the only way to spice up your daily routine. Now and then you should put aside your maths books and have a look at what else Bonn has to offer.

The culture ticket ("Kulturticket") is a project of the AStA that aims to make it easier for students of the University of Bonn to access cultural institutions in Bonn and the surrounding area. It does so by giving

culture ticket

costs

fitness studio: subscription

Römerstraße and Venusberg

register early

sports partner exchange

²University sports website: sport.uni-bonn.de.

them, for example, free admission to museums or reduced tickets at the box office of various theaters for only three euros! The latter is only possible if there are remaining tickets.

The availability of remaining tickets can be checked online or via an app (downloadable from the App Store/Play Store).³ At the moment, both the website and the app are only available in German. All events are listed and the number of remaining tickets is indicated by a traffic light system, including those for which the cultural ticket does not entitle you to reduced admission, but which may still be of interest to students.

color	meaning
blue	admission is free
green	many tickets are left
yellow	few tickets are left
red	no ticket are left
gray	no reduced admission

Table 14: Color of dots in the culture ticket app.

If the dot is missing, nothing is known yet about the availability of tickets. This will be announced one week before the event at the earliest and then updated daily afterwards.

Since the culture ticket only allows you to get tickets at the box office and not to pre-order tickets, it is, unfortunately, possible that you will appear at a theatre and there will be no tickets left. In this case, you might be able to find other events nearby via the app. A list of participating museums can be found on asta-bonn.de/de/service/beratungen/kulturticket. Important: Do not forget to bring your student ID!

The following is a list of suggestions for cultural activities. As the opening hours may change, make sure to check them again online.

Bonn Minster Since the 11th century, the Bonn Minster has been the landmark of the city of Bonn. An important example of medieval church architecture in the Rhineland.

Beethovenhalle The *Beethovenhalle* ("Beethoven hall") is currently being renovated and, in keeping with the Beethoven Year, was supposed to reopen this year. That did not work out—it is still under construction. It is the concert and congress hall of the city of Bonn. It

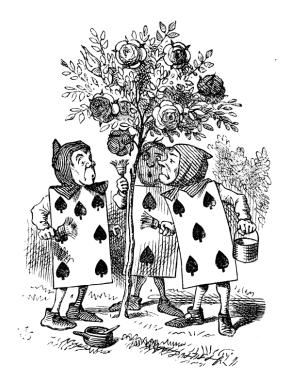


Figure 41: Artistic students of discrete mathematics meeting up to colour a tree.

also hosts the regular Beethoven festivals and is home to the Beethoven Orchestra.

- » Wachsbleiche 16, 53111 Bonn
- » www.beethovenhalle.de

Beethoven House Beethoven's birthplace houses the largest private Beethoven collection in the world. In addition to portraits and instruments, original manuscripts of the composer can also be viewed there. Free admission thanks to the culture ticket.

- » Wed Mon 10 AM-6 PM
- » Closed on Tuesdays
- » Bonngasse 20, 53111 Bonn
- » www.beethoven-haus-bonn.de

Brotfabrik The *Brotfabrik* ("bread factory"): theatre, music, dance... From performances to cinemas and workshops, you can find everything in this cultural centre.

- » Kreuzstraße 16, 53225 Bonn
- » www.brotfabrik-bonn.de

Opera and theatre Constantly changing performances of opera, drama and dance. Also, concerts and

³Website of the culture ticket: kulturticket-bonn.de.



Figure 42: Poppelsdorf Palace. Commenced in 1715, today used by institutes of biology and geology (e.g. Mineralogical Museum).

readings.

Opera: Am Boeselagerhof 1, 53111 Bonn
Theatre: Am Michaelshof 9, 53177 Bonn
Studio theatre: Rheingasse 1, 53111 Bonn
» Shared Website: www.theater-bonn.de

Young Theatre Bonn: Hermannstraße 50, 53225 Bonn, www.jt-bonn.de

Poppelsdorf Palace & Botanical Garden The Poppelsdorf Palace (German: "Poppelsdorfer Schloss", "Popp'Schloss") houses the Mineralogical Museum and the natural science collections of the University of Bonn. In summer, open-air concerts of the Bonn Classical Philharmonic Orchestra take place there. Behind the Poppelsdorf Palace lies the Botanical Garden. Admission is free on all days. The meadow in front of the Poppelsdorf Palace is a popular meeting place for students in the summer.

Opening hours in summer (April to October):

Garden: daily 10 AM-6 PM

Greenhouse: daily 10 AM-5:30 PM

Opening hours in winter (November to March):

Garden and greenhouse: Mon-Fri 10 AM-4 PM

» www.botgart.uni-bonn.de

Museums

Haus der Geschichte The *Haus der Geschichte* ("house of history") exhibits the history of the Federal Republic of Germany from 1945 to the present. Additional temporary and travelling exhibitions. Free

admission.

- » Tue-Fri 9 Aм-6 РМ
- » Sat and Sun 10 AM-6 PM
- » Willy-Brandt-Allee 14, 53113 Bonn
- » www.hdg.de/en/haus-der-geschichte

Bundeskunsthalle "Federal art hall"—one of the most visited museums in Germany. Changing exhibitions from the visual arts and cultural history to science and technology. Next door is the *Kunstmuseum Bonn* (Bonn Museum of Modern Art). Admission is free up to and including 18 years of age, otherwise at most €10.

- » Mon closed
- » Tue 10 AM-7 PM
- » Wed 10 Aм-9 РМ
- » Thu-Sun 10 AM-7 PM (and all public holidays, even if it is Monday)
- » Friedrich-Ebert-Allee 4, 53113 Bonn
- » www.bundeskunsthalle.de

Rheinisches Landesmuseum Bonn The "Rhenish State Museum Bonn" is a museum of the history, art and culture of the Rhineland with a permanent exhibition from the Neanderthals to the present day. There are also changing exhibitions. Additionally, there is a public library with a focus on archaeology and art history. Thanks to the culture ticket, admission is free. At the time of writing, this museum was closed for renovation work.

- » Tue-Sun 11 AM-6 PM
- » Colmantstraße 14-16, 53115 Bonn
- » www.landesmuseum-bonn.lvr.de

Deutsches Museum Bonn Museum of contemporary research and technology, branch of the *Deutsches Museum* in Munich. Free admission thanks to the culture ticket.

- » Tue-Fri and Sun 10 AM-5 PM
- » Sat 12 PM−5 PM
- » Ahrstraße 45, 53175 Bonn
- » www.deutsches-museum.de/bonn

Museum Alexander Koenig This "Zoological Research Museum" is one of the most important research institutes and natural history museums in Germany. Admission €2.50.

- » Tue-Sun 10 AM-6 PM
- » Wed 10 Aм-9 РМ
- » Mon only on public holidays
- » Adenauerallee 160, 53113 Bonn

» www.zfmk.de

Cinemas

WOKI *The* cinema in Bonn. Of special interest are the Sneak Previews on Wednesday and the English Sneak Preview on Monday. The latter features English versions with German subtitles. Both are very popular, so be sure to reserve tickets!

- » Bertha-von-Suttner-Platz 1-7, 53111 Bonn
- » www.woki.de
- » Prices: from €5.99.

Rexkino & Filmbühne Cultural cinema... Something different from Hollywood.

Rex: Frongasse 9, 53121 Bonn (next to Fiddler's)

Filmbühne: Friedrich-Breuer-Straße 68–70, 53225 Bonn

- » www.rex-filmbuehne.de
- » Prices: from €8.

Stern Kino/CineStar So to speak the neglected sibling of the WOKI. Moderately cosy and somewhat old-fashioned. Thursdays sneak preview for ϵ_4 .

- » Markt 8–10, 53111 Bonn
- » www.cinestar.de (choose "Bonn")
- » Prices: from €8.

Kinopolis Large capacity cinema in Bad Godesberg. You could go there, but you wouldn't miss anything if you didn't.

- » Moltkestraße 7–9, 53173 Bonn
- » www.kinopolis.de (choose "Bad Godesberg")
- » Prices: from €6.90 (Thu to Sun €8.40).

Places to Visit

Rheinaue The Rheinaue ("Rhine meadow") is a large park that was created at the time for the Federal Horticultural Show and is located on both sides of the Rhine. It is regularly the venue for festivals. Events such as flea markets (every third Saturday in the summer months), Kunst!Rasen and Rhine in Flames take place there, and it is also a popular place for barbecues in summer. There is also a skate park, a baseball field, a soccer field and small play tables. There are also some cultural attractions like the garden for the blind, the Japanese garden and the Roman road.

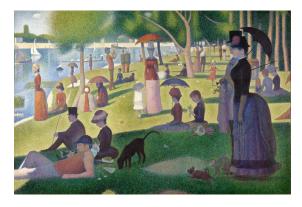


Figure 43: A Sunday afternoon at the Rheinaue.

Drachenfels The *Drachenfels* ("Dragon's Rock") is a mountain in the Siebengebirge, made famous by the Nibelungen saga, and a beautiful destination for a day trip. The villa *Drachenburg* ("Dragon's Castle") is also located there.

Opening hours of the palace may vary between seasons.

» www.schloss-drachenburg.de

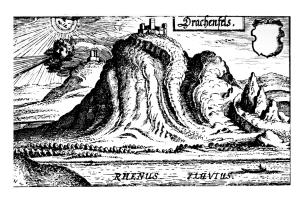


Figure 44: The Drachenfels.

Places to Eat

There are many good **takeaways** in Bonn. You should have visited these places at least once.

mm...food

There are even more good **restaurants** in Bonn, here is our crème de la crème.

And lastly, some recommendations for the starving students among us.

Kichererbse	city centre	#bestFalafel
Tibet Imbiss	Poppelsdorf	#bestSnackBar
Mykonos	Poppelsdorf	#bestGyros
Calador	city centre	#bestDrunkPizza
City Express	old town	#bestKebab
Tasty Sumo	South City	#bestTakeawaySushi
Da Sasà	Poppelsdorf	#bestTakeawayPizza

Table 15: Our favourite takeaways.

Schnitzel	Anno Tubac	€€
Sushi	Makiman, Ichiban	€€
Pizza	Tuscolo, Nennillo	€€
Italian	Giaccomo	€
Spanish	Der Spanier	€€
Burger	Burgermanufaktur	€€
Chinese	Dim Sum	€€€
Steak	El Tarascon	€€€€
Persian/Vegetarian	Von&Zu	€€
Breakfast	C'est la Vie	€
Indian	Taj India	€€
Greek	Restaurant Olive	€€€
Turkish	Divan Restaurant	€

Table 16: Our crème de la crème of restaurants.

Pubs & Bars

The pub is the natural habitat of a student—here is a selection. The pubs marked with an asterisk are highly recommended.

Fiddler's* Irish pub close to the campus with an excellent pub quiz every Monday and regular events.

Harmonie Decent pub close to the campus with a great kitchen and a larger beer garden. Hosts live concerts and events very regularly. A bit fancier but still affordable.

Spleen* After it was reopened, it used to be *the* regular pub. Nowadays it is missing a bit of its character, but it has the best nachos in town and a beer garden.

The pubs on Clemens-August-Straße are a bit *fancier*, and are not necessarily aimed primarily at students. You should be warned about the Gesindehaus: The seats are uncomfortable and the beer is bad.

BarRoon Chic corner pub/restaurant that you can also visit during the day.

Schnitzel	Bönnsch	each Sunday
Sushi	Kugelfisch	Mon–Fri,
Spareribs/Prawns	Shaker's	12 PM-5 PM Wed and Sun

Table 17: All you can eat offers.

Mausefalle 33 1/3* Corner pub with cult status for smaller groups. In summer the beer garden stays open until 10 PM and on weekends there are usually small concerts.

Studikneipe A cosy pub with regular pub quizzes, cosy furnishings and reasonable prices.

Alter Zoll* Large beer garden directly next to the Rhine. A little expensive, but the ideal place to sit outside in summer.

City Centre

James Joyce* The first one to come to mind when it comes to Irish pubs in Bonn. Both large and cosy, but often very crowded.

Cartoon & Pendel Two very similar cocktail bars that actually share the owner and the kitchen.

Caspian Cocktail bar directly opposite the Carpe Diem.



Figure 45: Students of combinatorics trying to solve problems with the help of pubs and bars.

Tacos Half TexMex restaurant, half cocktail bar. Not bad, if you can stand the interior decoration. You should avoid the burgers.

Bönnsch This brewhouse serves beer in special glasses of funny shapes.

Blow Up The city centre alternative to Die Wache. When nothing is open anymore, the Blow Up is still open.

Limes Rather alternative, with a large selection of mainly Eastern European beers. Ideal for a post-WOKI nightcap.

Café Blau Café/pub in the Viktoriakarree. The seats in the front are comfortable, in the back not so much. Great for large groups in particular.

South City

Campus and

surroundings

The Dubliner Chic Irish pub, but just as old-fashioned as all of the others. Located in a large cellar, but not uncomfortable. The beer pong tournament is highly recommended.

Die Zone The best whiskey selection in town. The landlord is, let's say, a bit of a character and doesn't like whiskey posers—watch out!

Billabonn Pub with an Australian theme.

Pinte Just another pub—not bad, but nothing special.

Lichtblick* A nice, bright, friendly pub with Pfeffi (peppermint liqueur) for €1. Better for smaller groups.

Musiktruhe & Stachel Typical old town pubs. Both are certainly worth a visit.

UnfassBar After a Flimm (woodruff liqueur) for €1.50 you may as well leave.

Café Pavlov* Equal parts café and pub, so it's just the right place for a morning vodka. You can get pizza across the street.

Die Wache** Dark, filthy, with loud music and a stripper mannequin hanging from the ceiling: the place where every good evening ends. Open every day until 5 AM. Table football is free of charge here.

Nyx Located in the street parallel to Die Wache. Regular Karaoke night. Every 4th Sunday of the month the "War of the Roses" (Poetry Slam) takes place here.

Flynn's Inn Small pub with amazing (and expensive) craft-beer selection. The pub quiz on Tuesdays is not bad, but the execution is a bit unusual.

Tresor Metal pub with an excellent CD collection.

Babel* Small, cosy, somewhat shabby old town pub opposite the leftist book store "Le Sabot".

Maya Lies opposite of the Babel, and is its antithesis, so to speak: Large, restaurant-like, and somewhat too well lit.

Namenlos A large room with metal chairs and tables. Less a place to spend an evening and more a stopover on the way to the N8schicht. Table football is free of charge here.

Bla Strategically located between N8schicht and Frittebud. The Gin&Tonic is not bad.

Kult41* Actually a cultural centre with a gallery and the highest stage in Bonn, but there are regular pub nights. The right place to meet some interesting people over a Pinkus beer.

Nightlife

Is there any nightlife in Bonn? Well, maybe a little. Bonn has a lot to offer as far as pubs are concerned, but if you're looking for a club, it's a bit more difficult Here is a summary of Bonn's nightlife.

The N8schicht/N8lounge A simple club with rather bad music, if no special parties are announced. Now and then there are interesting Goa parties in the N8lounge. With the right people, it's still quite amusing here—especially at the Maths Party during the semester!

The Pearl Formerly Aprtmnt. A chic club with several floors, chart heavy music and a very young clientele. But if you want to fall into a cosy bed while partying, you can do so here.



Figure 46: A group of students meeting for a night out.

Carpe Noctem A pleasant club near the central station opposite Calador. Here you should wait for parties with an interesting motto, too—otherwise, it's rather empty and a 30+ party.

Gleis8 Formerly Das Sofa, has the same owners as the Carpe Noctem. A club with a dance floor you should definitely try.

Jazz-Galerie When something is going on here, it's really fun! Every Thursday there is a salsa party with a dance course in advance—highly recommended.

What else? For a better experience, it's recommended to go to Cologne. On weekends, the trains are going the entire night. On Wednesdays there is the 50-Cent-Party in the Klappsmühle—you should have been there at least once.

Cafés

Of course, you can have fun without alcohol. For a short break in between, to relax and switch off with a delicious cup of coffee or hot chocolate, or for a change of scenery during the study period, the following cafés are suitable.

Café Kurt

Clemens-August-Straße 55 #Roastery, #GoodCake, #OwnEspresso



Figure 47: A quartet of students enjoying a quiet afternoon at their favourite café.

Black Coffee Pharmacy

Bonner Talweg 46B #OwnEspresso, #BestCheeseCake, #OnlyLove

Cafe Lieblich

Bonner Talweg 115 #Art, #Sofa, #Reading, #RestTheMind

FRIEDRICHS Coffeeshop

Nassestraße 1 #Juridicum, #Students, #GoodAndCheap

Café Roller

Hofgarten #CoffeeToGo, #FairTrade, #GoodAndCheap

Kessel's Espresso Studio

Friedrichstraße 54 #AfterLunchEspresso, #EspressoOfTheWeek

Café Orange

Fritz-Tillman-Straße 6 #Shabby-Chic, #GoodCake

Jaz Boutique Café Art

Breite Straße 69
#France, #GoodCake, #Delicatessen

Die Bonner Kaffeeschule

Obere Wilhelmstraße 27 #Roastery, #Calm, #Reading, #Design.

Tips, Tricks and Further Advice

This chapter is a compilation of various practical tips for living in Bonn that do not really fit into any of the previous chapters.

Student Mentoring

There is a support programme by students for students. It is a strictly voluntary mentoring programme where you will get a personal mentor, a student in the 2nd or higher master semester, who has a maximum of two mentees. Then you can meet up at the beginning of the semester and ask questions about living and studying in Bonn and also ask for personal advice.

Registrations are made via email by sending your name to hcm.mentorinnen@ins.uni-bonn.de.



Figure 48: A student and their mentor meeting for the first time.

Bicycles

Many students agree that a bicycle is *the* best way of transportation for students in Bonn. In fact, the AStA has set up a bicycle repair shop, where you can get

cheap parts and repair your bike under expert supervision.

We have compiled some links to sift through below, in case you are looking to buy a second-hand bike.

- The German Bike Club (ADFC)¹ and the AStA² regularly organise second-hand markets for bicycles. The next one should take place this October.
- There is a store run by a charity selling used bikes, refurbished with a one-year warranty, at reasonable prices.³
- There are websites for private ads of all varieties—including bikes. The most commonly used one is eBay Kleinanzeigen.⁴

In case you don't own a bicycle or don't want to take yours with you, bike-sharing is a useful alternative. You simply rent a bike for the duration of your trip and leave it at your destination for the next person to use. The main bike-sharing provider in Bonn is welo (used to be Nextbike), which offers students 30 minutes per lease free of charge.⁵

foodsharing

"foodsharing" is an organisation that works against food waste by saving food that would otherwise end up in the trash. To find out how you can become a "Foodsaver" yourself or how to contribute without being actively involved, visit the website www.foodsharing.de (in German). Information in English can be found in the English Wikipedia article.

¹ADFC (in German): touren-termine.adfc.de.

²AStA bicycle market (in German): asta-bonn.de/en/services/consultations-and-services/bike-market.

³Bike House Bonn: www.bike-house-bonn.de.

⁴eBay Kleinanzeigen: www.kleinanzeigen.de.

⁵Nextbike Bonn: www.welo-bike.de/en/.

⁶Wikipedia article "Foodsharing.de": en.wikipedia.org/wiki/ Foodsharing.de.

PDF Editing Tools

We have compiled a few recommendations of programs with which you can create PDF files. The following (incomplete) list includes smartphone apps for scanning documents and programs for merging PDF and image files into a coherent document. These tools are particularly useful for handing in exercise sheets.

Scanning Documents

- » iOS (Apple):
 - As of iOS 11 via the pre-installed app Notes ⁷
 - As of iOS 13 alternatively via the preinstalled app Files.⁸
 - Via the free app CamScanner by Intsig (creates watermark).
 - Via the paid app Scanner Pro by Readdle (€4.49 on the App Store).
- » Android:
 - Via the free app CamScanner by Intsig (creates watermark).

Merging Documents

- » Linux:
 - → PDF Arranger.¹²
 - > pdfunite.13
- » Mac:
 - > As of macOS 10.14 directly via the Finder. 14
- » Online:
 - Xodo (also available for iOS and Android) 15
 - iLovePDF (also available for Mac and Windows).
 - > PDF24 (also available for Windows). 17

⁷Support page about scanning documents via Notes: support. apple.com/en-us/HT210336.

⁸Tutorial about scanning documents via Files: www.macrumors.com/ how-to/scan-documents-ios-files-app.

⁹CamScanner on the App Store: apps.apple.com/de/app/ camscanner-free-pdf-document/id388627783.

¹⁰Scanner Pro on the App Store: apps.apple.com/de/app/scanner-pro-by-readdle/id333710667.

¹¹CamScanner on the Play Store: play.google.com/store/apps/ details?id=com.intsig.camscanner.

¹²The package is called pdfarranger on APT and DNF.

¹³Part of the package poppler, or poppler-utils. Details at github. com/mtgrosser/pdfunite.

¹⁴Support page about combining files via Finder: support.apple.com/guide/mac-help/combine-files-into-a-pdf-mchl21ac2368/mac.

 $^{^{15}}URL: \mbox{\sc www.xodo.com/app.}$

¹⁶URL: www.ilovepdf.com.

¹⁷URL: tools.pdf24.org/en.

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- » "Beer" by Zach Harris, US. b
- » "Knife and fork icon" by Lorc.^c
- » "book vector png".d

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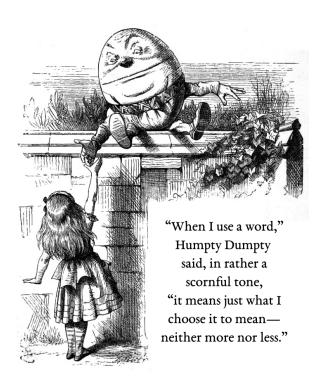


Figure 49: Humpty Dumpty, the patron saint of mathematicians.

Glossary

annex (German *Nebengebäude*) is a small building behind the MZ. It is home to the Fachschaft and the recreation room and also includes a few seminar rooms.

AStA (*Allgemeiner Studierendenausschuss*, meaning "General Students' Committee") is the body that legally represents all students at the university. More information is available at asta-bonn.de/en/about-asta.

AStA Store is a store run by the **AStA** where you can get inexpensive stationery. Location and business hours are available at asta-bonn.de/en/services/consultations-and-services/asta-store-1.

Aufenthaltsraum is German for recreation room.

AWD (*Anwesenheitsdienst*, meaning "attendance service") is the regular advisory service of the Fachschaft Mathematik. It usually takes place in the Fachschaft office in the annex.

Phone number: +49 1590 1489564.

Bachelor-Master Office (BaMa) handles all matters of the Examination Office of the bachelor's and master's programmes of mathematics. They will also advise you on questions of study organisation. Contact information is available at mathematics.uni-bonn.de/studium/en/contact/examination-office-bama.

BAföG (Bundesausbildungsförderungsgesetz, meaning "Federal Training Assistance Act") is a need-based financial aid provided by the German state. Half of the BAföG financial support is usually a grant, the remaining half an interest-free loan. More information on BAfäG can be found in chapter "All about Money", page 39.

BaMa is short for Bachelor-Master Office.

BASIS is the web service hosting the digital course catalogue of the university. Here you also have to register for examinations.

Address: basis.uni-bonn.de.

bicycle repair shop (German *Fahrradwerkstatt*) is a DIY workshop run by the AStA. It is located right under the annex. You yourself repair your bicycle, but you will get help from an expert free of charge and you can buy cheap spare parts.

Info: asta-bonn.de/en/services/consultationsand-services/bike-workshop.

BigBlueButton is a video conferencing software.

BIGS is short for Bonn International Graduate School of Mathematics.

Bologna Process is a series of agreements between European countries to seek coherence in the field of higher education. It is named after the Italian city of Bologna. As part of the Bologna Process, all participating countries agreed to introduce a three-cycle higher education system consisting of bachelor's, master's and doctoral studies. The Bologna Process is also the reason why you will receive a *Diploma Supplement* with your degree.

Bonn International Graduate School of Mathematics (BIGS) recruits and supports doctoral students of mathematics in Bonn. It is part of the Hausdorff Center for Mathematics (HCM).

c.t. is short for the Latin term *cum tempore*, meaning "with time". If these letters appear next to a time specification, it means that you have to add 15 minutes. For example, "10 c.t." means "10:15". This is when most courses start, and it is usually understood without explicitly mentioning it. The contrary is *sine tempore* (s.t.)

CIP-Pool (a.k.a. PC-Pool) is the name of the computer workspaces at the university. There are two CIP-Pools used by students of mathematics; one in the annex and one in the HRZ. The name is a remnant of the so-called Computer Investment Programme, a support programme for universities from 1984.

Cluster of Excellence is an association of research institutions from different disciplines working together on research projects. They receive project-related funding for internationally competitive fields of research as part of the German federal funding programme *Excellence Initiative* (called *Excellence Strategy* since 2017).

There are currently six Clusters of Excellence in Bonn, one of which is the Hausdorff Center for Mathematics (HCM) with the alternative long title "Hausdorff Center for Mathematics: Foundations, Models, Applications".

Corona is the name of a Mexican beer brand. It is available in most supermarkets.

Ah, yes, there is also a virus with the same name...

CP is short for redit point.

credit point is a unit of measurement defined by the European Credit Transfer and Accumulation System (ECTS); one credit point corresponds to a workload of 30 hours. To obtain your master's degree, you need to acquire at least 120 credit points. Further requirements are regulated by the PO.

culture ticket is a project by the AStA which gives free admission to certain museums and reduced tickets for various theatres.

Dies academicus is an event happening once every semester. There will be no regular courses on that day but many multidisciplinary and cultural events. The programme will be published at www.uni-bonn.de/en/studying/degree-programs/more/life-long-learning-university.

Discord is a proprietary online service. It offers chats, (video) calls and server management architecture. Discord has proved to be a valuable (unofficial) communication tool during times of the coronavirus lockdown.

Discord is available to download for free at discord. com.

DM is short for Research Institute for Discrete Mathematics.

eCampus is an official web service that can be used by lecturers to host course materials and communication interfaces. Its use has increased massively since the beginning of the coronavirus lockdown. You have to register for your courses at the beginning of the semester (in addition to your registration on BASIS). If a course is password protected, the login data will (hopefully) be communicated by the Bachelor–Master Office (BaMa).

Address: ecampus.uni-bonn.de.

ECTS is short for Real European Credit Transfer and Accumulation System.

eduroam is a service that allows you to use free Wi-Fi in the vicinity of university buildings. The eduroam network in Bonn is operated by the HRZ.

European Credit Transfer and Accumulation System (ECTS) is a system designed to make academic achievements in European countries better comparable. It specifies that grades are weighted by credit points. Problem: credits points are a purely quantitative measure. The introduction of the ECTS in Germany is part of the Bologna Process.

Fachschaft [faxſaft] is a vague term that can mean different things in different contexts. By law, the Fachschaft Mathematik is the collection of all enrolled students in the bachelor's, master's and doctoral programmes of mathematics. In everyday usage, a "member of the Fachschaft" usually refers to a student who is involved in organising or executing Fachschaft-related tasks.

The Fachschaft is run by the FSR and the FSV. Some people translate Fachschaft as "student council", but we like to preserve this term for the FSR.

Website of the Fachschaft Mathematik: fsmath.unibonn.de.

Fahrradwerkstatt is German for so bicycle repair shop.

File-Service-Infrastructure is an online storage service provided by the HRZ.

Fraunhofer Society is a German research organisation with 72 institutes spread throughout Germany, each focusing on different fields of applied science. There are multiple Fraunhofer institutes in Bonn and its surroundings, but mainly three of them are of interest for mathematicians:

- » Fraunhofer Institute for Algorithms and Scientific Computing (SCAI),
- » Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS),
- » Fraunhofer Institute for Communication, Information Processing and Ergonomics (FKIE).

Fraunhofer Institute for Algorithms and Scientific Computing (SCAI) is a research institute independent from the university and part of the Fraunhofer Society. It is associated with the Institute for Numerical Simulation (INS). Website: www.scai.fraunhofer.de/en.html

FS is short for **Fachschaft**.

FSR (Fachschaftsrat, meaning "student council") is one of the two committees of the Fachschaft—alongside the FSV. Tasks of the FSR include day-to-day business, the organisation of events and the AWD. The FSR holds regular meetings—normally in the annex, at the moment only online via Discord—where everybody (not only elected members) is invited to speak.

FSV (*Fachschaftsvertretung*, meaning "student representation") is one of the two committees of the Fachschaft—alongside the FSR. It is elected yearly by all matriculated students. Tasks of the FSV include deciding on the budget of the Fachschaft.

GOsa is the digital identity management system of the university. Here you can change your residential address and manage email aliases.

Address: gosa.gosa.uni-bonn.de.

Hausdorff School for Advanced Studies in Mathematics (HSM) supports postdoctoral researchers beginning a career in academia or beyond the university, including training in academic teaching. It is part of the Hausdorff Center for Mathematics (HCM).

Hausdorff Research Institute for Mathematics (HIM) organises international long-term research programmes devoted to topics in mathematics and mathematical economics. It is part of the Hausdorff Center for Mathematics (HCM).

Hausdorff Center for Mathematics (HCM) is the Cluster of Excellence in the subject of mathematics. It includes all five institutes of mathematics (MI, IAM, INS, DM, MPI) as well as the Department of Economics.

HCM is short for Readorff Center for Mathematics

HG (*Hochschulgesetz*, meaning "Higher Education Act") is a law that all universities in North Rhine-Westphalia must comply with.

HIM is short for Research Institute for Mathematics.

HRZ (*Hochschulrechenzentrum*, meaning "University Computing Centre") is a central institution operating the university's IT services. They also provide support and instructions for setting up Wi-Fi and email. Website: www.hrz.uni-bonn.de.

HSM is short for B Hausdorff School for Advanced Studies in Mathematics.

IAM is short for real Institute for Applied Mathematics

INS is short for so Institute for Numerical Simulation.

Institute for Applied Mathematics (IAM) is one of three mathematical institutes of the Faculty of Mathematics and Natural Sciences. Website: www.iam.unibonn.de.

Institute for Numerical Simulation (INS) is one of three mathematical institutes of the Faculty of Mathematics and Natural Sciences. Website: ins.uni-bonn.de.

Jitsi is a video conferencing software.

Landwirtschaftskammer Rheinland means "Chamber of Agriculture Rhineland". This self-regulatory organisation was housed in the building of the MZ until 2004, when it merged with the former chamber of Westphalia-Lippe to form the new Landwirtschaftskammer Nordrhein-Westfalen.

lecture period is the period within the semester in which courses take place. It is usually around 14 weeks long (not including holiday breaks). Exams are usually scheduled in the lecture-free period. Start and end dates are different each semester. They can be found at mathematics.uni-bonn.de/studium/en/study-organization/calendar.

Library of Mathematics is located in the MZ. It is run co-operatively by the ULB Bonn and the mathematical institutes. To borrow books you need an account at the ULB Bonn which you can get for example from the MNL Branch Library. Website: bib.math.unibonn.de.

main building ("Hauptgebäude") is the palace next to the Hofgarten. It is mainly used by the Faculty of Arts and the theological faculties. Not to be confused with the MZ.

Math Center (*Mathematikzentrum*, meaning "Mathematics Centre") Refers to the same building as the entry right below this one (MZ).

Mathematical Institute (MI) is one of three mathematical institutes of the Faculty of Mathematics and Natural Sciences. Website: www.math.uni-bonn.de.

Max Planck Institute for Mathematics (MPI) is a mathematical institute independent from the university but part of the Hausdorff Center for Mathematics (HCM). Website: www.mpim-bonn.mpg.de.

Mensa is the name of the canteen run by the StwB. There are two relevant sites: CAMPO (next to the MZ) and Mensa am Hofgarten (interim tent directly next to the main building). Depending on the site, a Mensa Card might be required to buy a meal.

Info: www.studierendenwerk-bonn.de/en/fooddrink.

Mensa Card can be used for cashless payment in every café and Mensa run by the StwB. It is available for a deposit of €5 at every Mensa and has to be renewed at the start of each semester. If you are a resident of a dormitory, you will also need the Mensa Card to operate the washing machines and dryers.

MI is short for ☞ *Mathematical Institute*.

MNL Branch Library is a branch of the ULB Bonn. "MNL" stands for medicine, natural sciences and agriculture (German "Landbau").

module is the building block of your studies. These are courses (e.g. lectures or seminars), which usually span one semester and are concluded by an exam.

Module Handbook is a document containing information on all modules offered in the mathematics master's degree programme. It can be found at mathematics.uni-bonn.de/studium/medienordner-studium-1/dateien/po-modulhandbuch/mscmath-modulhandbuch.pdf.

MPI is short for so Max Planck Institute for Mathematics.

MZ (*Mathematikzentrum*, meaning "Mathematics Centre") is home to the Bachelor–Master Office (BaMa), the Mathematical Institute (MI), the Institute for Applied Mathematics (IAM) and the Library of Mathematics. This building has previously been used by the Landwirtschaftskammer Rheinland (and because of monument protection you can still see its lettering above the entrance).

Some people will call this the "main building" to distinguish it from the annex, but make sure not to confuse it with the actual main building.

Nebengebäude is German for annex.

PO (*Prüfungsordnung*, meaning "examination regulations") dictates how your *entire* study program is structured. This is a very important document that you should read carefully at least once.

recreation room (German *Aufenthaltsraum*) is located in the annex. Here you can relax, make a coffee or tea or work on your homework. There is also a microwave and a fridge. Unfortunately, this room is closed during the coronavirus lockdown.

Regelstudienzeit is German for standard period of study.

registration period is the time in which you'll be able to register for exams. It usually takes place from 1st December to 20th December for the winter semesters and 1st June to 20th June for the summer semesters.

Research Institute for Discrete Mathematics (DM) is a mathematical institute outside of the Faculty of Mathematics and Natural Sciences. Website: www.or.uni-bonn.de.

s.t. is short for the Latin term *sine tempore*, meaning "without time". If these letters appear next to a time specification, it means that time is exact, i.e. "10 s.t." means "10:00".

The contrary is *cum tempore* (c.t.)

SCAI is short for Fraunhofer Institute for Algorithms and Scientific Computing.

sciebo is a cloud storage service offered by the university. More information can be found in the chapter "Digital Services of the University", page 17.

SP is short for student parliament.

Stadthaus is the city hall of Bonn. It is the largest and probably the ugliest building in the city centre. Among other things, it houses the residents' registration office. Don't forget to register! You have to reserve an appointment; expect eternally long waiting times.

standard period of study (German *Regelstudienzeit*) is the number of semesters finishing your studies is planned to take, i.e. four in case of the master studies. You won't have to fear any consequences by the university if you cannot finish your studies in the standard period of study, but some financial aids are only payed during this period, e.g. BAföG.

student parliament (SP) is the highest institution of the student body. It is elected by all students, usually in January.

studienservice is an official web service where you can download official ceritificates of enrolment and view your payment status of the semester fees

StwB (*Studierendenwerk Bonn*, meaning "Student Services Organisation Bonn") is a public non-profit organisation for student affairs in Bonn and its surroundings. In particular it runs every Mensa, the dormitories and the day care for students with children and it handles all BAföG applications.

summer semester is the period of the year from 1st April to 30th September. Within the summer semester lies a lecture period with varying start and end dates and the Pentecost break.

ULB Bonn (*Universitäts- und Landesbibliothek Bonn*, meaning "Bonn University and State Library") is the central library of the university. It consists of a main site and the MNL Branch Library. Students can get a free account to borrow books. Website: www.ulb.unibonn.de.

Uni-ID is your username to access all digital central services such as GOsa, BASIS, eCampus and sciebo. It is also part of your email address.

WaCE (German *WuKA*) is short for Wine and Cheese Evening, an event organised by the Fachschaft.

winter semester is the period of the year from 1st October to 30th March. Within the winter semester lies a lecture period with varying start and end dates and the Christmas break.

WuKA is German for ☞ *WaCE*.

Zoom is a proprietary online service. It offers video calls with screen sharing capabilities. Zoom has been used by most lecturers for online lectures during times of the coronavirus lockdown.

Zoom can be accessed via the university's zoom page at uni-bonn.zoom.us. A standalone client is available to download for free at zoom.us.

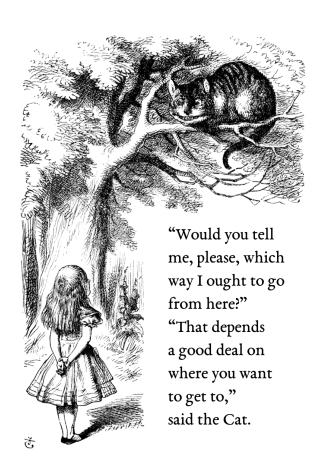
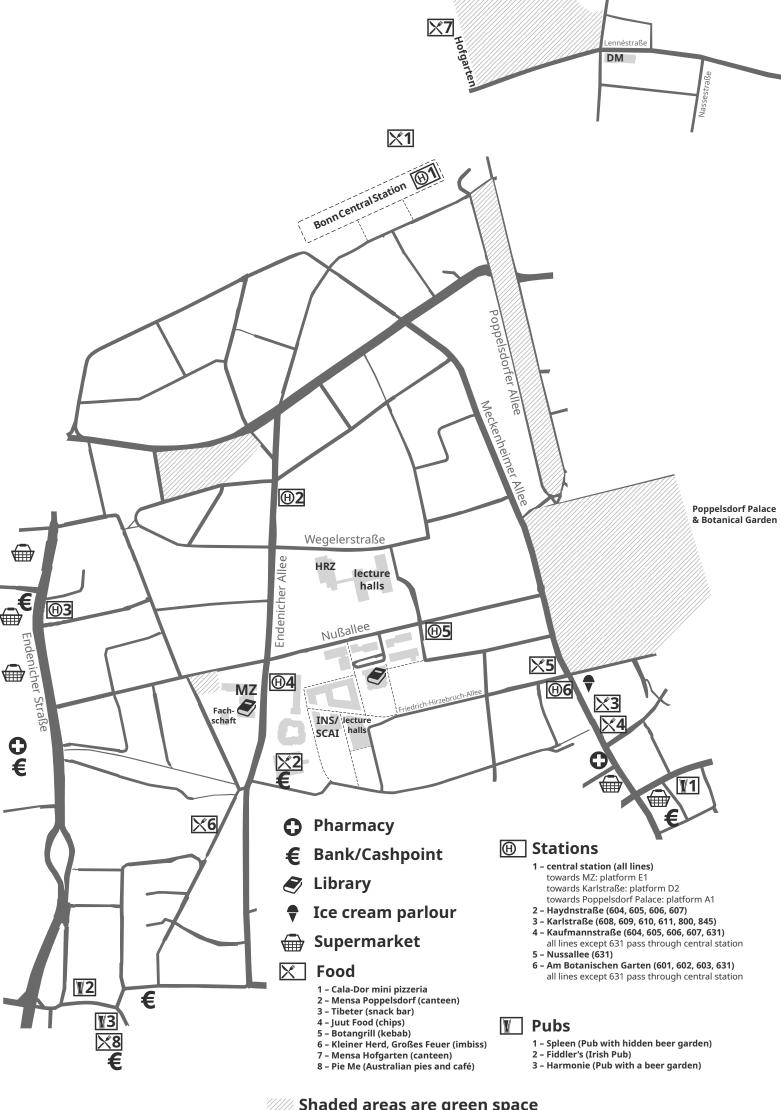
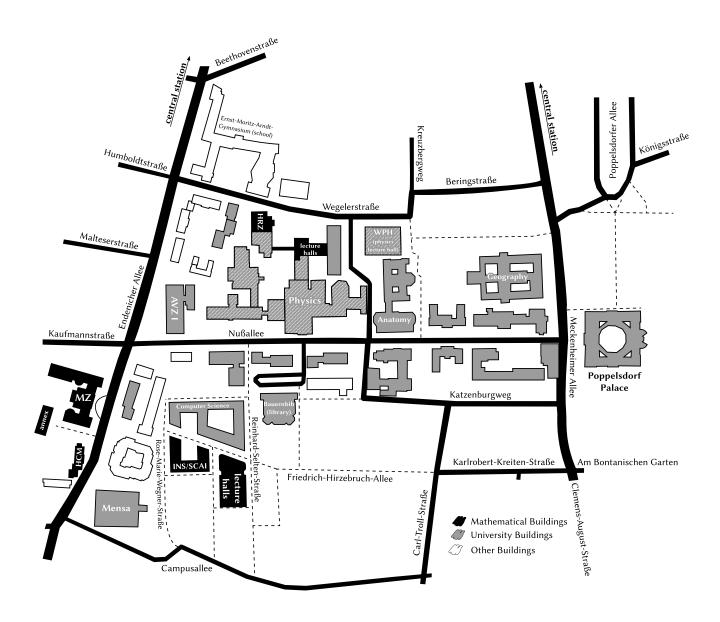


Figure 50: Now it's up to you.





Winter Semester 25/26		Summer Semester 2026	
3.10	German Unity Day	13.4	Start of the lecture period
13.10	Start of the lecture period	3.4	Good Friday
15.3	Tutors' training	6.4	Easter Monday
1.10-30.10	Registration period for seminars	15.3	Labour Day
	and practical courses	14.5	Ascension Day
1.11	All Saints' Day	25.5	Pentecost Monday
1.12	Deadline for transfer of credits	4.6	Corpus Christi
1.12	Start registration period for exams	24.7	End of the lecture period
3.12	Dies Academicus		
24.12-6.1	University Christmas break		
6.2	End of the lecture period		
12.2-18.2	Carnival		