

Supervision Agreement for Doctoral Students of the Berlin Mathematical School (BMS)

Preamble

The goal of the doctoral phase of studies is to complete the dissertation as a work of independent research, for which the doctoral student is primarily responsible. The supervisor's task is to promote the student's scientific independence and support their research with professional advice and suggestions.

Following the recommendations of the DFG, the BMS has formulated this Supervision Agreement for its doctoral students to clarify roles and responsibilities of the parties involved. The agreement was written in accordance with

- the DFG guidelines for safeguarding good scientific practice
- the MATH+ bylaws
- and the BMS Study Regulations.

The supervisor(s) and the doctoral student agree to follow the principles of good scientific conduct.

The doctoral student will also have a mentor independent from the supervisor. The mentoring program is described in the Guidelines for Mentoring in Phase II.

Responsibilities of the Supervisor(s) and the Doctoral Student

The topic and (preliminary) title of the dissertation should be chosen and agreed upon by the supervisor(s) and the doctoral student within six months of the date of this Agreement. The preliminary title, as well as any later changes, must be reported to the BMS Office.

The supervisor(s) shall advise the doctoral student on the independent preparation of the dissertation. In particular, the supervisors(s) shall:

- introduce the student to the research area and other relevant scientific fields;
- guide the student to the appropriate scientific literature and other research materials;
- help the student formulate and define the research topic;
- discuss and assess hypotheses and methods;
- examine and critique preliminary results;
- encourage participation at scientific conferences within available financial means;
- facilitate internships where appropriate;
- meet the student regularly – at least once per semester, but normally more often – for detailed discussions;

- advise the student on the writing and structure of the dissertation;
- ensure that the student can devote the majority of their time to their doctoral research;
- provide adequate working conditions and help the student integrate into the research group;
- advise the student on publishing their research;
- advise the student on their professional and personal development.

The doctoral student is required

- to commit their time and effort to work on the dissertation topic;
- to maintain regular contact with the supervisor(s) in order to take advantage of the supervision as described above;
- to report regularly (at least once per semester) to the supervisor on their progress towards the dissertation. The timetable for completion of the dissertation will be reviewed and, if necessary, revised at these times. The doctoral student shall periodically present their preliminary results in internal seminars.
- to submit an Annual Report documenting their progress, scientific achievements and academic activities. The report should also explain plans for further work towards the dissertation, and is to be submitted to the supervisor and the BMS Office at the end of each summer semester.
- to make an effort to publish their research results.

The dissertation shall normally be completed within three years. Extensions may be granted in exceptional circumstances, for instance due to family commitments. Suggestions on how to combine scientific work with family life can be found on the BMS website.

If the doctoral student is working as a research assistant, the dissertation should be completed within five years. Within this time frame, a total of three years should be available for the dissertation research.

The doctoral student should be granted time to participate, if desired, in the self-governance of the BMS and the universities.

Scientific Training and Structuring

During the first two years of Phase II, the doctoral student normally attends, in consultation with the Supervisor(s), at least one BMS Advanced Course per semester. Alternatively, the doctoral student may participate in the structured program of one of the certified units of the BMS.

The doctoral student is expected to expand their knowledge not only in the chosen area of specialization but also more broadly. Participation in further BMS offerings, such as summer schools and workshops, is encouraged. Phase II students are also encouraged to serve as assistants for BMS Basic Courses in order to gain teaching experience.

It is recommended that the doctoral student gain international research experience, which could take the form of:

- one or more extended stays at a research institute or industrial research lab abroad (or if more appropriate at another institute in Germany),
- presentations (lectures or posters) of scientific results at several conferences with mostly international participants, and/or
- collaborative research with international guest scholars, including those invited to the BMS by a group of doctoral students for a certain time period.

All of the above must be arranged with the supervisor in advance.

The BMS expects the following from the doctoral student:

- regular attendance at the MATH+ Friday Colloquia and
- participation in BMS Soft-Skills Seminars or in comparable offers from the universities.

Financing

The BMS Phase II (of four to six semesters) is for doctoral research, preferably within one of the Research Training Groups (RTGs), Collaborative Research Centers (SFBs) or International Max Planck Research Schools (IMPRSs), or within MATH+ interdisciplinary projects. The BMS integrates these groups as certified units guaranteeing supervision and a research environment for Phase II students. BMS Scholarships are provided for a small minority of Phase II students; the majority receive funding through MATH+ projects, the certified units, from the university departments or from individual research grants.

Arbitration

If conflicts arise between the doctoral student and supervisor, which threaten a continued atmosphere of cooperation and trust and which seem unresolvable, then the student and supervisor should proceed as follows:

- First the mentor is asked for a consultation.
- The BMS coordinator is asked for a consultation.
- If necessary, the doctoral student and/or supervisor may appeal to the BMS Committee or the doctoral student can ask the BMS Student Representatives to speak on their behalf to the BMS Committee.

Additional Terms

The doctoral student may choose a new supervisor. This may change the content and/or focus of the dissertation and affect the funding source. The doctoral student must inform the BMS of any changes.

The supervisor(s) and the doctoral student agree to follow the rules set out in the BMS Study Regulations.

Berlin, _____

Signature Doctoral Student

Signature supervisor

printed name

printed name

This supervision agreement should be signed **by the end of the first semester in Phase II**. Please send a scan of this page to the BMS Office via e-mail (office@math-berlin.de).