Dynamical Systems III: Bifurcation Theory and Paralipomena
Bernold Fiedler
http://dynamics.mi.fu-berlin.de/lectures/

The Exam will take place on July 13, 10.00 a.m.-12.00 p.m.

As an alternative to the usual "Klausur", it will be in the format of a "häusliche Klausur", also known as "take-home exam".

We will strictly follow the rules and guidelines of FU. In the following, we will explain the concrete procedure, please read it carefully!

Please note:

If, for any valid reason, it will be impossible for you to follow the procedure of the exam, please let us know until July 9 (strict deadline, any later problems cannot be taken into account).

1 Start of the exam

At 10:00 a.m. on July 13, the exam sheet (.pdf file) will be made available to you simultaneously via

- email: from the dynamics.exercises@gmail.com to your regular email address: If we don't have your regular email address yet and you would like us to send the exam to it, please drop us a line (dynamics.exercises@gmail.com) until July 9 (strict deadline).

- made public in the KVV (at the very beginning of the home feed of the course).

2 During the exam

You will need to confirm that you received the exam. Please write to dynamics.exercises@gmail.com before 10.15 a.m.

A short line in the style of "Got it! xxx" where xxx stands for your name is enough.

The exam consists of two parts: "Bifurcation Theory" and "Paralipomena". Each part takes 45 minutes plus an additional 15 minutes "Kulanzzeit" for computer problems, confirming that you received the exams, taking pictures of the exam, making it a PDF file and sending it via email.

All books and materials, including the internet, are allowed.

Feel free to use any format you like for answering the questions, like handwriting on

paper and taking pictures afterwards, writing with a graphics tablet, Latex, ... It is recommended that you try in advance which format suits you best.

As always, all answers must be proved. This includes calculations which could for example be done by Mathematica: you will still need to write down every step that leads to your answer.

It is not allowed to communicate with each other during the exam and as a consequence, any obvious attempt will be graded as "fail" (5.0).

3   End of the exam

Please send your exam to dynamics.exercises@gmail.com before 11:00 a.m., if you choose to answer only one part (5 credits) or before 12:00 noon, if you choose to answer both parts (10 credits). Any later submissions will be graded as "fail" (5.0).

We accept pdf and jpg formats. Please use the convention "exam_name_surname" to name your files. In case you need to submit more than one file, let us know the ordering with the labeling "exam_name_surname_partX".

It is required that you sign and submit the Eigenständigkeitserklärung and send it back together with the exam solutions.

We will confirm that we received your exam. Expect an email by 12:30.

4   AFTER the exam

Unless you did so before, please take your time to merge your original submission into a **single .pdf** file and then send it to us with the naming convention specified above, then send it to us by 15:00 on the day of the exam.

Relax and take a rest: you've earned it!

5   Topics of the exam

The exam will be split in two parts, each graded separately:

- Part 1: "Bifurcation Theory" will consist of 4 basic questions and 1 problem covering chapters 1 to 5 in the script of the lecture.

- Part 2: "Paralipomena" will consist of 4 basic questions and 1 problem covering the materials from chapter 6 in the script until the lecture on Thursday July 1.

The questions and problems will be reasonably close to the basic questions and exercise problems, but not necessarily identical. If you only wish to be evaluated for one of the

two parts of the course, you only need to answer the corresponding part of the exam. For example, if you only want to be graded for Bifurcation Theory, you only need to submit your answers to part 1 of the exam. **Please recall, however, that single part exams have to be submitted before 11:00 a.m.**