Assignments to Condensed Matter Theory I
Sheet 0

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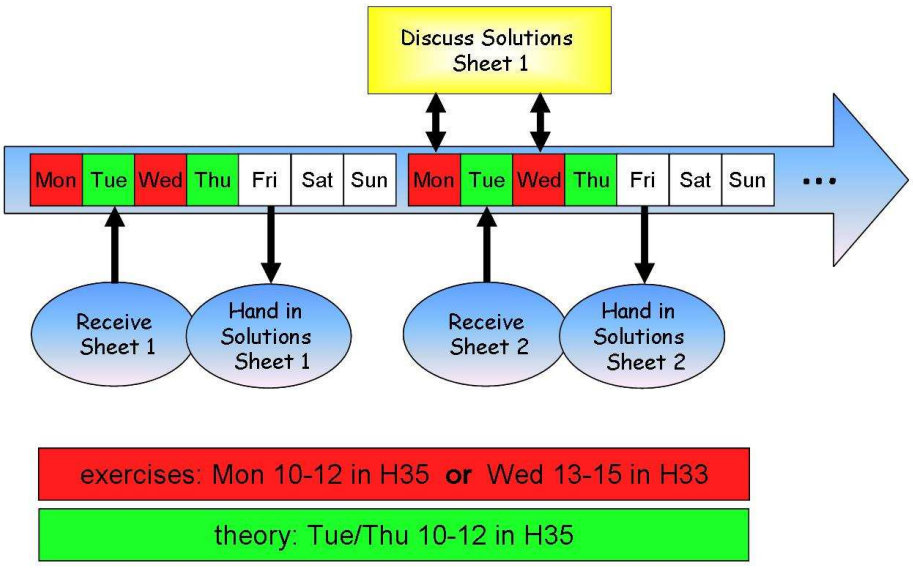
sheet online: http://www-MCG.uni-R.de/teaching/

Problem set: Rules of the game

The course presents different learning opportunities: 23 theoretical two-hour-lectures, 10 exercise classes, 3 sessions of computational laboratory and 2 hours for the recitation of the numerical results. Since nothing else than "hands-on" approach helps to fix ideas, we will give a lot of importance to the written exercises proposed on a weekly basis. This point of view is also reflected in the evaluation of the written exercises and of the recitation.

0.1. Exercise sheets

(a) An exercise sheet is given at the Tuesday lecture and **clearly written** solutions of the exercise sheets should be handed in before midday of Friday of the same week (read the next point before screaming ;-)) in the post box of the course located in "*Treppenhaus 1. Etage (Bibliothek Physik)*". The exercise solutions will be discussed during the following Monday and Wednesday exercise classes (see figure).



(b) Each sheet contains 2 categories of questions: the first are meant to check a good basic comprehension of the arguments treated during the week (*Pflicht*) while the second is proposing some extension of the results or a more advanced application of the techniques presented in the course (*Kür*).

(c) The questions that are not marked as $K\ddot{u}r$ should be understood as $Pflicht$. Answering to $Pflicht$ questions is a $Kategorischer\ Imperativ$ for a good course comprehension. $K\ddot{u}r$ questions though are also very important and strongly recommended.

(d) Some dates: the 5th of June is holiday and there will be no exercise class. Not to penalize one of the two exercise groups also 31st of May date will be cancelled.

0.2. Computational laboratory and recitations

(a) One week of June is dedicated to the computational laboratory. This particular exercise sheet will consist of a task to be solved with a computer simulation. It will be released online before the 11th of June and requires all the subsequent week for the preparation of the solution.

(b) You will be asked to develop a simple code that allows you to calculate and visualize some of the results obtained in the course.

(c) In practice at the time of the lectures and exercise sessions of the 19th, 20th, 21st and 22nd of June, the Linux CIP pool will be available for coding and running the simulations. Group sizes of 2-3 people are encouraged. Some time of the exercise sessions of the week before will be dedicated to the explanation of the task. Any program language can be used for the calculation but assistance can be ensured only for MATLAB®.

(d) Short oral presentations of the results will take place the following 26th, 27th and 28th during lecture and exercise time.