DRSTP SPCTM school 2018
Introduction to tensor networks for QMBS

Exercises overview

Here is some general information regarding the exercises:

- Start with the Matlab warmup tutorials (see separate handouts) to get familiar with Matlab and the tensor network routines, especially *ncon* and *tensorsvd*. The additional routines can be found in the *exercises/minclude* folder in the dropbox (`https://tinyurl.com/ycp9unaa`).
- After the warmup you can move directly to exercise 2. For time reasons we will skip exercise 1. I added it here as additional material for the interested students (you can check out the solution code in the dropbox folder if you like).
- If you have programmed an MPS imaginary time evolution code (exercise 2) before (or if you are very quick), you can also try exercise 3 instead of exercise 2.
- Exercise 4 is on 2D tensor networks which we will do on Wednesday.
- All solution codes will be available in the dropbox folder.
- Don't hesitate to ask questions!

It is clear that not everyone has the same level of programming skills. This does not matter! Try to get out of the exercise classes as much as possible at your own speed! The goal would be that every student gets at least one basic MPS code (exercise 2) running. Please also help each other out, especially if you have previous experience with Matlab and/or tensor networks.

HAVE FUN!