Sherpa Tutorial

Freiburg GK 2016

1 Prerequisites

This tutorial uses a virtual machine. Please install `Oracle Virtual Box`, cf. `www.virtualbox.org` on your personal computer prior to the tutorial. Due to time constraints we cannot assist you with setting up software during the tutorial itself. If you have questions regarding installation, please ask them beforehand.

2 Download

The virtual machine disk can be downloaded from

http://sherpa.hepforge.org/VM_Freiburg_GK.vdi.7z

Unarchive the disk using 7-Zip, `p7zip -d VM_Freiburg_GK.vdi.7z`. If 7-Zip is missing on your Linux system, install the package `p7zip`. On MacOS, use the unarchiver.

3 Creating the Virtual Machine

Create a new machine with VirtualBox using the GUI. In the first step, VirtualBox will ask for the name of the machine and its OS. For the latter choose `Linux -> Ubuntu (32 bit)`. In the next step, set the size of the memory. About 1GB should be fine. In the last step, select the virtual disk. Choose 'Use an existing virtual hard drive file' and open the *.vdi file you just downloaded and extracted.

Before starting the virtual machine, enter its settings and increase the video RAM size to at least 48MB (`Settings -> Display -> Video`). If you have more than two processor cores on your host system, allow the VM to use two cores (`Settings -> System -> Processor`). You must enable hardware virtualization in your BIOS to do this!

4 Starting the Virtual Machine

We are booting a lightweight Linux, which you can customize.

The login name is student, the password is 2016.

The keyboard layout can be set using the layout switcher in the task bar, or by running `setxkbmap LC` in the terminal, where `LC` is your language code (`us`, `de`,...). Common tools which are installed include `xterm`, `lxterminal`, `vi`, `emacs`, `gv`, `evince` and `firefox`. If you need root privileges to install further programs of your choice, use sudo. Note that the package information has been purged, and you need to run sudo aptitude update before any other command.

5 Running the tutorials

Instructions for the tutorials can be found in the

`~/tutorial/Freiburg_sheets/`

folder of the virtual machine. There are two main directories, `bsm/` and `mc/`, corresponding to the BSM Monte Carlo usage, and the SM Monte Carlo usage tutorial.