BCNTLS ^{4}HeDFT Codebase — Quickstart Guide

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An Internet connection and the 'git'-program is required on the machine where the Git commands are going to be executed ! This should already be installed in most cases.

1 Obtaining the code

To obtain the code only one command in a terminal window is required. Change to the directory where you want the top level directory of the code to reside and execute

```
$ git clone <GitHub URL>
```

where `<GitHub URL>` needs to be substituted by on of

1. `https://github.com/bcntls2016/4hedft.git`
2. `https://github.com/bcntls2016/4hedft-vortex.git`
3. `https://github.com/bcntls2016/4hetddft-isotropic.git`
4. `https://github.com/bcntls2016/4hetddft-anisotropic.git`

These repositories contain, respectively,

1. Static ^{4}Helium DFT
2. Static ^{4}Helium DFT with vortex support
3. Time Dependent ^{4}Helium DFT for impurities in an isotropic electronic state (e.g. s-states)
4. Time Dependent ^{4}Helium DFT for impurities in an anisotropic electronic state (e.g. p-states)

2 Compiling the code

After git has downloaded the repository from the Internet, chance to the repository directory which should be named after the last part of the URL without the `.git` part. Then execute

```
$ git checkout -b work
```

This will create a new git 'branch' called work where we can work in while not contaminating the 'master' branch.

You need to create a makefile to tailor it to your machines architecture. You can use one of the templates named `makefile.<machine>` if you want and save it as `makefile`. After you have created your own makefile and saved it as `makefile` execute

```
$ make
```

After there are no errors one of {`BCN4HeDFT, scalarimp_absor_new, vectorimp_absor`} executables should be ready to use, unless you changed the name in your makefile.

Make sure that the makefile's file name is `makefile` *otherwise your own customizations could be overwritten after an update !*