**Installation instructions OpenMC**

OpenMC is Monte Carlo particle transport code. In contrast to other Monte Carlo particle transport codes (MCNP5, MCNP6, SCALE, etc. ) OpenMC is open source. It also features a modern Python API. Unlike particle transport codes like GEANT4, OpenMC is specifically designed for reactor applications, which includes simulating fission processes (which GEANT4 does not yet do).

There are several different options to how to install OpenMC. The recommended way is using Docker (available for both linux, Windows, macOS, Ubuntu). Using Docker the installation for parallell processing on your machines is also much easier.

OpenMC documentation, installation guide, user’s guide, etc. are available. If you install from source code, be sure to install the latest version (v11.0.0) and not the stable v10.0.0 as this version does not have the depletion module. The latest version (v11.0.0) also has capability of transporting photons in addition to neutrons, which could be of interest.

The source code is available from:

<https://docs.openmc.org/en/latest/>

Using Docker the installation process is rather simple:

1. Install Anaconda
   1. <https://www.anaconda.com/distribution/>
2. Install Docker
   1. <https://docs.docker.com/install/>
   2. Run the provided script:

If you have not used/been aware of Jupyter Notebook up until now, I would highly recommend it - or better still: JupyterLab.

**Common problems:**

Make sure that your environmental variables are set, this include the following:

**export** PATH=$HOME/openmc/build/bin:$PATH

**export** LD\_LIBRARY\_PATH=$HOME/openmc/build/lib:$LD\_LIBRARY\_PATH

**export** PYTHONPATH=$HOME/openmc:$PYTHONPATH