Install spack

Installation of spack as described here:

```
git clone -c feature.manyFiles=true --depth=2 https://github.com/spack/spack.git
cd spack/bin
```

Spack is then installed at ~/spack

Install palace

Palace is a registered package in the built-in Spack package repository.
From the command line at user home directory :

```
source ~/spack/share/spack/setup-env.sh
spack install palace
```

This installs 61 packages and takes 30 minutes or so. The directory of the installed palace package is then shown at the end:

[+] /home/volker/spack/opt/spack/linux-ubuntu24.04-skylake_avx512/gcc-13.3.0/palace-0.12.0-ojf63dw23tcbbudkghzmlsnj64hqcng4

Optional: create symbolic link in home directory

```
ln -s /home/volker/spack/opt/spack/linux-ubuntu24.04-skylake_avx512/gcc-13.3.0/palace-0.12.0-ojf63dw23tcbbudkghzmlsnj64hqcng4 ~/palace
```

Running Palace with the IHP gds2palace workflow

The gds2palace workflow for IHP will create model files (*.msh and config.json) that we can simulate using Palace.

To simplify the overall workflow, we can add some scripts now. The script directory should be added to your PATH, so that these scripts can be executed from anywhere in your file system.

The first script “run_palace” is used to start Palace, with a number of threads that makes good use of your available CPU resources. In the example below, we have configured with for 8 threads using the -np 8 parameter.

```
#!/bin/bash
~/palace -np 8 $1
```

This is all you need to start a Palace simulation job from the command line using

```
run_palace somemodel.json
```

The next script is used after running the simulation, to convert Palace results in *.csv format to standard *.snp Touchstone file format. This script is called “combine_snp” and calls a Python code that actually does the job.

```
#!/bin/bash
~/venv/palace/bin/python3 ~/scripts/combine_extend_snp.py
```

That Python code required the scikit-rf Python library, and we had used a venv named “palace” to install this library together with the gdspy and gmsh libraries required by the gds2palace workflow.

All these scripts and codes can be found in the scripts directory of the gds2palace github repository, you just need to adjust them to your actual path settings.