# FEniCS Course

## Lecture 1: Installation of FEniCS

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# Installation alternatives

☞ Nike Server (Simula internal)


☞ Docker images on Linux, Mac, Windows

http://fenicsproject.org/download/

# FEniCS on Nike (Simula only)

The nike server at Simula has FEniCS pre-installed and can be used from the Jupyter notebook interface.

Log into the Nike server using your github credentials:

`http://nike.simula.no`

Live demo

# Installation using Docker

Follow instructions to install Docker on Linux, Mac, or Windows:

https://docs.docker.com/linux/ or `mac/`, `windows/`

Download and open a terminal in a clean FEniCS environment:

*Bash code*

```
$ curl -s http://get.fenicsproject.org | sh
```

*Bash code*

```
$ fenicsproject notebook suurph dev
$ fenicsproject start suurph
```

More instructions on using FEniCS Docker images here:

http://fenics-containers.readthedocs.org

# *The FEniCS challenge!*

Login to Nike and create a new Python notebook, or install FEniCS on your laptop!

`http://nike.simula.no`
`http://fenicsproject.org/download/`

# *Does it work?*

*Python code*

```
%matplotlib inline  # Needed for plotting in
    Jupyter notebooks

from fenics import *

mesh = UnitCubeMesh(16, 16, 16)
plot(mesh)
interactive()
```