

# Engineering Seismology and Seismic Hazard: Tutorial sessions

<b>APRIL 2019</b>				
<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30	1	2	

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The tutorial sessions will provide all the information and tools necessary to complete your projects.

- Combination of lectures, demonstrations, and project work
- Lectures will apply concepts from the course lectures to the OpenQuake engine
- Demonstrations are interactive – you will follow along on your own computers

# Day 1

- Install and operate the **VirtualBox** with a customized Virtual Image that includes OpenQuake
- Use the **Linux Terminal** for simple tasks and to run the OpenQuake engine
- Use **Quantum GIS** to display, explore, and manipulate geospatial data
- Introduce the **course project**

# Day 2

- Introduction to OpenQuake (OQ), Part 1
  - Overview
  - Seismic source modelling
  - GMPE modelling
- Italy PSHA example, Part 1
  - Creating the OQ input files
  - Displaying inputs
- Project work

# Day 3

- Introduction to OpenQuake (OQ), Part 2
  - Logic trees
  - Calculation outputs
- Italy PSHA example: Part 2
  - Running the calculation
  - Plotting the output results
  - Sensitivity analysis

# Handy resources

- OpenQuake manual and demos: see the desktop of the VirtualBox
- QGIS very basics  
<https://nates-intro-to-qgis.readthedocs.io/en/latest/basics.html>
- General QGIS help  
<https://www.qgistutorials.com/en/>
- Cheat sheets provided in the course materials