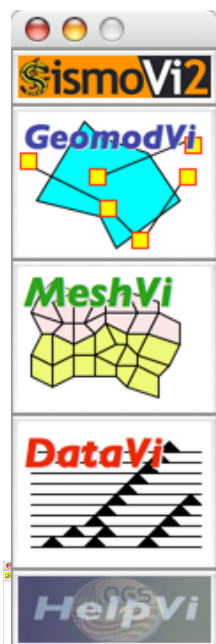# *SismoVi* a tool for seismic wave modelling & analysis

**Authors:** Francesco Apostolico, Géza Seriani

**email:** sismovi@ogs.trieste.it

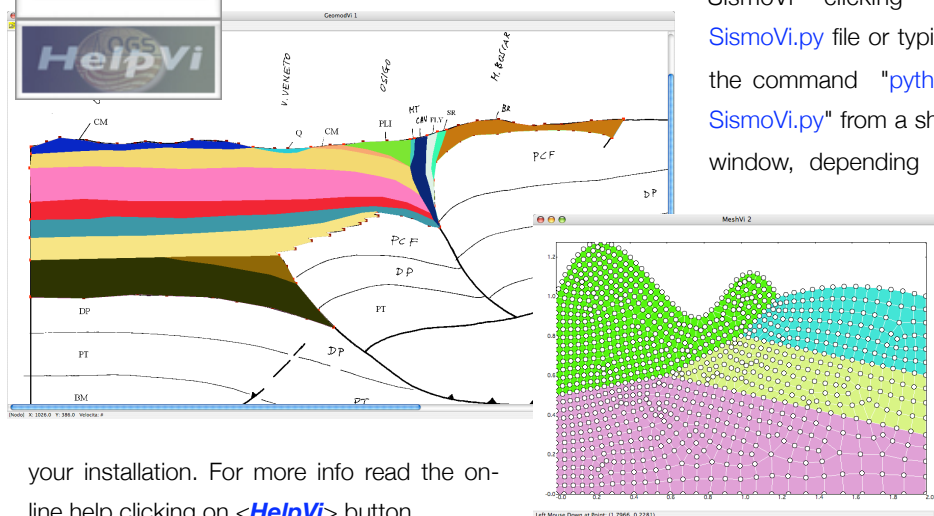**web:** www.spice-rtn.org/sismovi

## ReadMe  (Version 2.00)

**SismoVi**   is a pre-/post-processing tool based on the scripting language *Python* and on the graphics library *wxPython* for the GUI interface. It has been developed with a strong emphasis on portability and flexibility.  Being based on open source libraries, it is in fact portable on Unix/MacOSX/Linux and Windows computer systems. The full power of the *Python* language is available to the end user who can easily interact with the data on the fly, making transformations of them and viewing the results. The available scripting syntax, which is very similar to that of *FORTRAN 90*, *Matlab* and *Mathematica,* allows for very efficient evaluations.

**Installation**   Decompress the installation file and then copy/move the included `Sismovi` folder in any convenient directory. Run SismoVi clicking on SismoVi.py file or typing the command "python SismoVi.py" from a shell window, depending on your installation. For more info read the on-line help clicking on <**HelpVi**> button.

**Prerequirements**    Before using SismoVi, in your system must be installed the *Python-2.4* interpreter, the *wxPython-2.6* GUI toolkit, the *Numeric* and *Numarray* libraries and the *Matplotlib* library,   see   <http://www.python.org/>, <http://wxpython.org/>, <http://sourceforge.net/projects/numpy>, <http://matplotlib.sourceforge.net/>.

**Extras**    Manuals on Python language and libraries have been collected in the `"Python_Docs"` folder.  Examples of a geo-model project and data files are found in `"Sismovi/demos"` folder.  Included are also `SVlib.f90` and `sismovilib.py`.

**Notice**    SismoVi  is still under development and part of an on-going project.
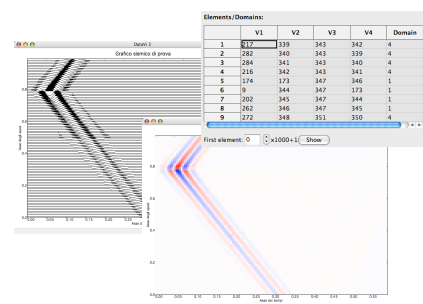
### Main features

- Three interactive integrated modules
  - *GeomodVi* for geological model generation from geological maps
  - *MeshVi* for visualisation and editing of computational grids
  - *DataVi* for visualisation and data processing of seismograms
- Computing platform independent
- Developed in *Python* & *wxPython*
- Interactive shell for data processing and visualisation
- Efficient array syntax
- Scientific operators and functions
- Plotting libraries *matplotlib*