

This guide includes a Continuous Wavelet Transform (CWT), significance tests from based on Torrence and Compo (1998) and Cross Wavelet Analysis (CWA) based on Maraun and Kurths(2004). <https://wavelet-analysis.readthedocs....>

61 commits

2 branches

0 releases

3 contributors

BSD-3-Clause

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Mabel Calim Costa Mabelete and Mabel Calim Costa Mabelete remove wavetest\_2.7.py #13 fix

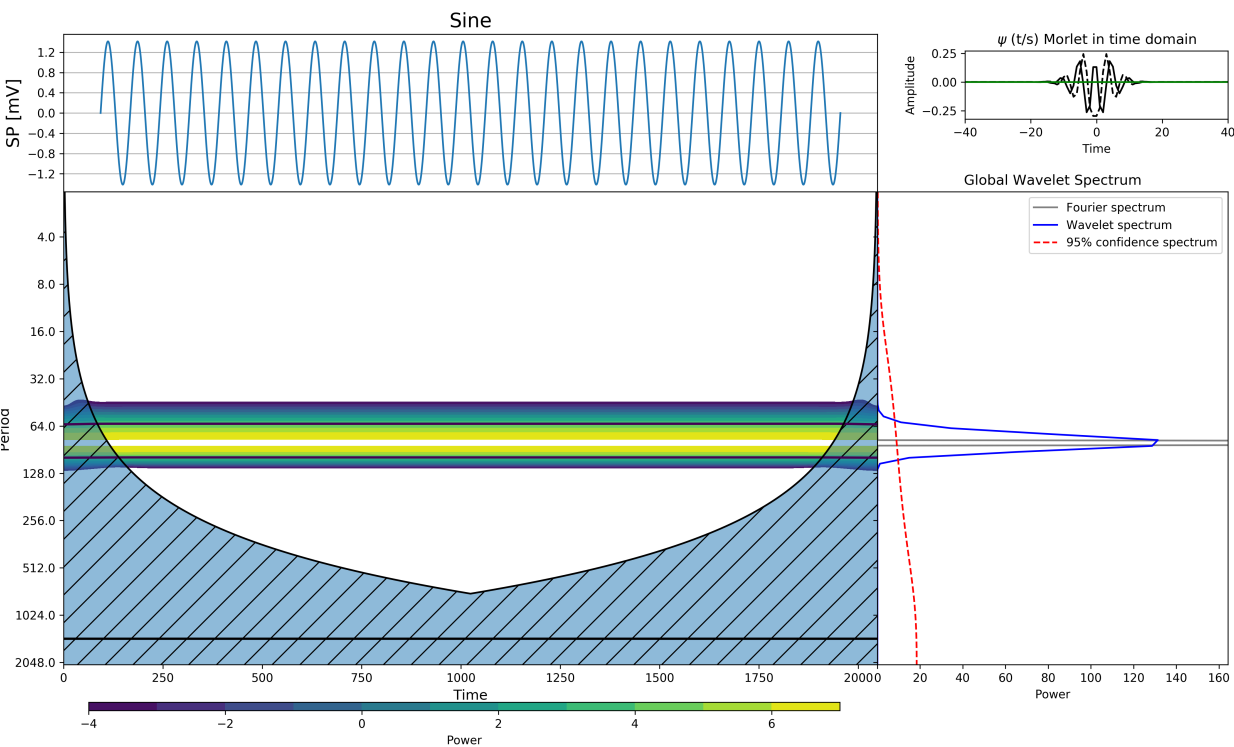
Latest commit 0101d47 on 11 Jun 2018

.ipynb_checkpoints	example using python3.6 free to go	a year ago
Waipy Examples	wavelet coherence issue fix #8	a year ago
dist	adding some fine examples using cwt and cwa	a year ago
lib	remove wavetest_2.7.py #13 fix	a year ago
read_the_docs	Added 3 Examples to the documentation	5 years ago
.gitignore	3 Examples as .py and .ipynb in Waipy Examples added.	5 years ago
LICENSE	Initial commit	5 years ago
README.md	Update README.md	a year ago
Sine.png	example using python3.6 on jupyter added and cwt working fine	a year ago
setup.py	Merge branch 'master' of https://github.com/mabelcalim/waipy	5 years ago

README.md

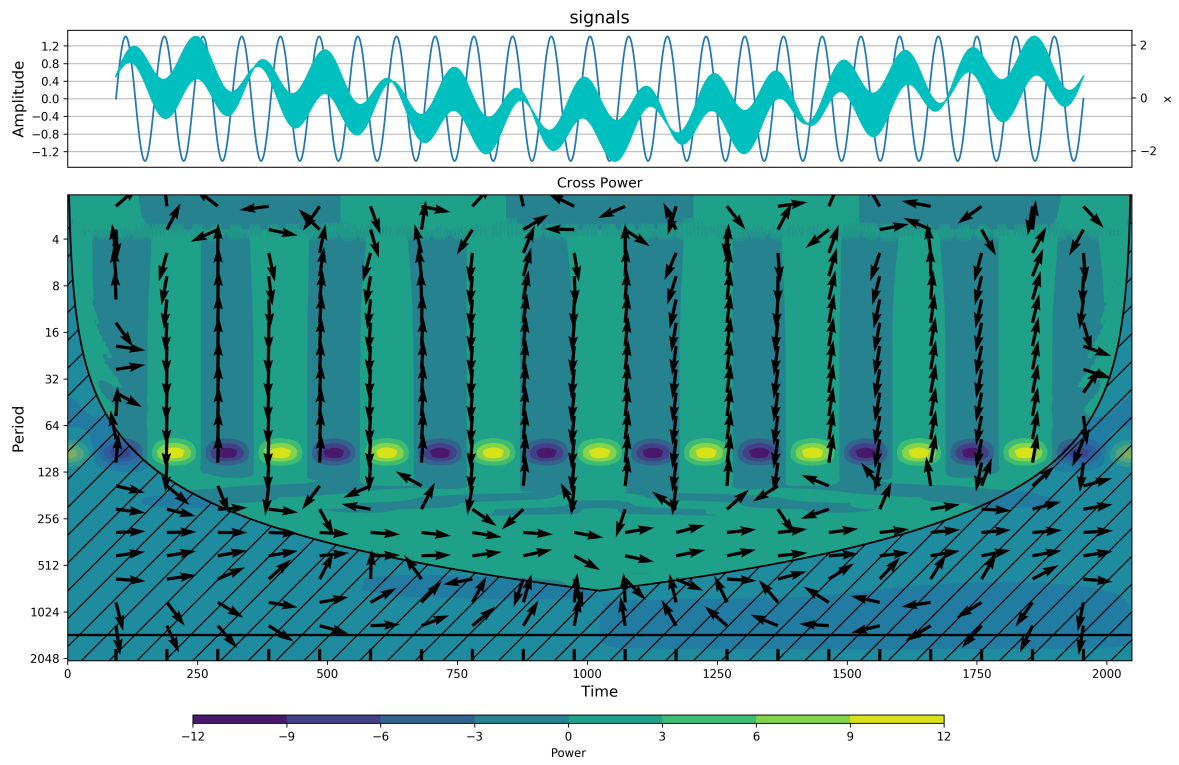
# waipy

This guide includes a Continuous Wavelet Transform (CWT), significance tests from based on Torrence and Compo (1998)

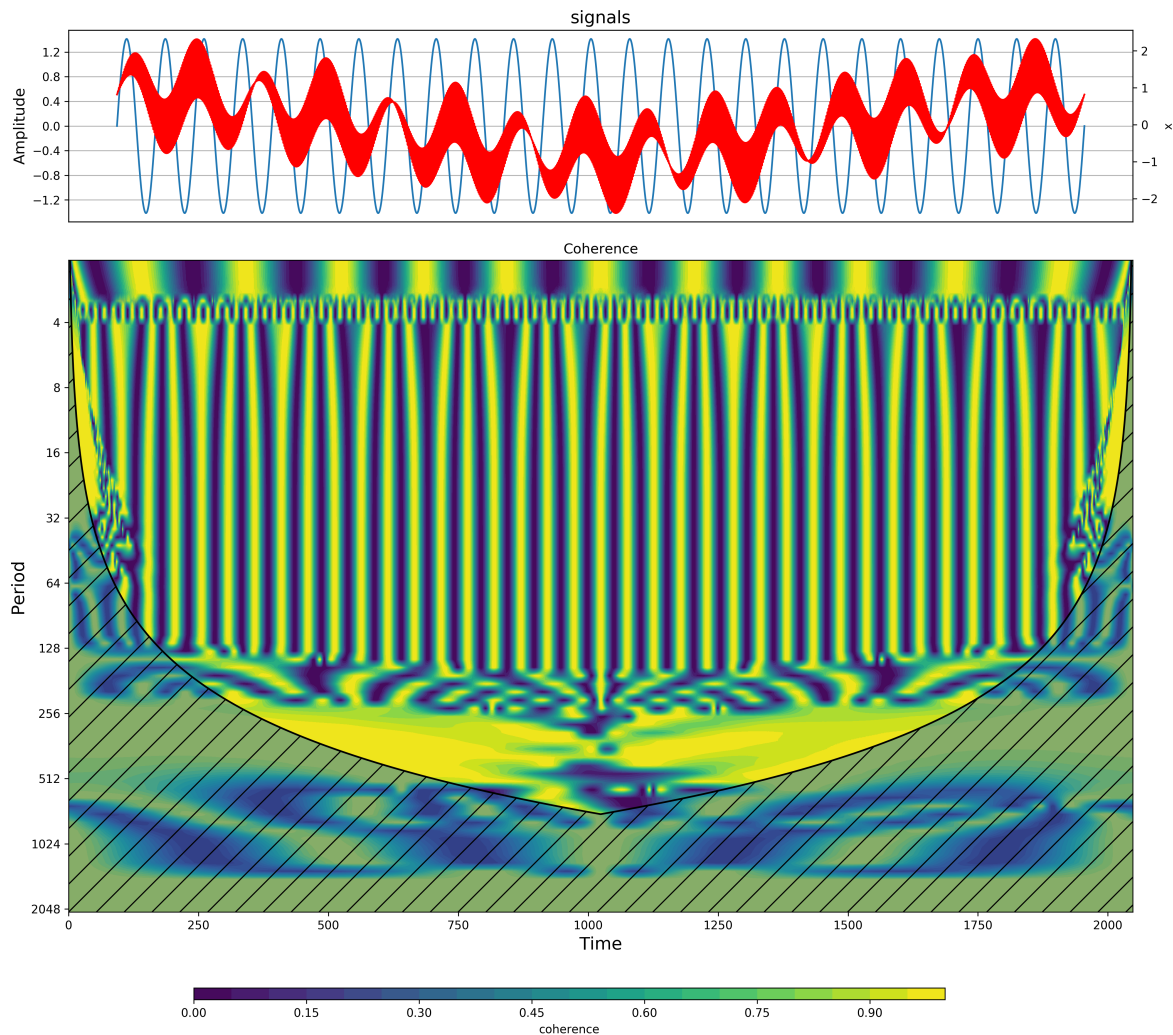


and Cross Wavelet Analysis (CWA) based on Maraun and Kurths(2004).

# Cross Power Wavelet Analysis:



## Wavelet Coherence Analysis:



## Installation

First steps:

```
cd PATH_TO_SAVE_WAIPY_IN_YOUR_HOME
git clone https://github.com/mabelcalim/waipy.git
cd waipy/
```

A local install can be done using the provided setup.py file:

```
python3 setup.py install
```

The installation path can be changed using the `--prefix` switch, e.g.:

```
python setup.py install --prefix $HOME/inst
```

Make sure to add the corresponding paths to your `$PATH` and `$PYTHONPATH` environment variables. Alternatively, if the `--user` switch can be used:

```
export PYTHONUSERBASE=$HOME/inst/pip_installs
export PYTHONPATH=$HOME/inst/pip_installs/lib/python2.7/\
site-packages/:$PYTHONPATH
```

```
export PATH=$HOME/inst/pip_installs/bin:$PATH
python setup.py install --user
```

If you plan on modifying the code, use the **develop** target in combination with the **--user** switch:

```
export PYTHONUSERBASE=$HOME/inst/pip_installs
export PYTHONPATH=$HOME/inst/pip_installs/lib/python2.7/\
  site-packages/:$PYTHONPATH
export PATH=$HOME/inst/pip_installs/bin:$PATH
python setup.py develop --user
```

The first three lines should also be included in the **\$HOME/.bashrc** file.

## Requirements

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The following packages are required (tested on Debian Wheezy):

- python-matplotlib
- python-numpy
- libnetcdf-dev
- libhdf5-dev
- netcdf4 (<https://github.com/Unidata/netcdf4-python.git>)

## Installing requirements for python3

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- pip3 install numpy
- pip3 install matplotlib
- pip3 install netCDF4
- pip3 install pandas
- pip3 install scipy

As a tip, try to use jupyter !

- pip3 install jupyter

## Examples

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- <https://github.com/mabelcalim/waipy/tree/master/Waipy%20Examples%20/Jupyter>

## Use waipy without install it!

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Check the prêt-à-porter.ipynb examples!!!

- [https://github.com/mabelcalim/waipy/blob/master/Waipy%20Examples%20/waipy\\_pr%C3%AAt-%C3%A0-porter.ipynb](https://github.com/mabelcalim/waipy/blob/master/Waipy%20Examples%20/waipy_pr%C3%AAt-%C3%A0-porter.ipynb)
- [https://github.com/mabelcalim/waipy/blob/master/Waipy%20Examples%20/cwa\\_pr%C3%AAt-%C3%A0-porter.ipynb](https://github.com/mabelcalim/waipy/blob/master/Waipy%20Examples%20/cwa_pr%C3%AAt-%C3%A0-porter.ipynb)

## Support Group

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<https://groups.google.com/forum/?hl=en#!forum/waipy-users-support>