

Introduction to Observational Seismology

Recommended pre-class reading list

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NOTE: Other useful materials are hosted on this [Google Drive](#) (click to open). Access to this drive, except for the books, is free for anyone.

Here I compile a list of some useful materials for further learning:

Module 1:

- What's inside the Earth: Interactive poster [link](#)
- Coding environment: Jupyter Notebook [link to tutorial](#)
- Free cloud server: Google Colab [link to tutorial](#)
- Basic mapping tool: Basemap [link to tutorial](#)

Module 2:

- Theoretical travel time and ray paths: Obspy Taup [link to tutorial](#)
- Access to seismic data servers: Obspy FDSN Client [link to tutorial](#)
- Pendulum seismometer [link](#)

Module 3:

- Efficient Bayesian sampler, emcee, [link to tutorial](#)
- Common Framework for Inference (CoFI) [link to tutorial](#)
- Amazing interactive demonstration of MCMC methods [link to website](#)

Module 4:

- P-wave coda autocorrelation method [link to research paper](#)
- Global correlation wavefield [link to review paper](#)

Module 5:

- Google machine learning crash course [link to tutorial](#)
- Machine Learning Cơ Bản by Vũ Hữu Tiệp [link to ebook](#)
- Seisbench: A toolbox for machine learning in seismology [link](#)