## **Software for EEG artifacting**

There are several toolboxes and libraries available for EEG signal filtering. Here we are going to focus on a small subset of them that are probably the most used ones at the time this document was written. All of them are software libraries that can be used independently of the EEG system that acquires the data:

1. EEGLAB ([EEGLAB](https://sccn.ucsd.edu/eeglab/index.php), [EEGLAB Wiki](https://sccn.ucsd.edu/wiki/EEGLAB)): This is an interactive Matlab toolbox for [processing](https://www.bitbrain.com/blog/ai-eeg-data-processing) continuous and event-related EEG, MEG, and other electrophysiological data. It includes filtering techniques such as independent component analysis (ICA) or artifact rejection and several filtering plugins can be downloaded to increase the toolbox potential. It also incorporates time/frequency analysis, event-related statistics, and several modes of visualization of the averaged and single-trial data. EEGLAB runs on Windows, Mac OS X, Linux, and Unix.
2. FieldTrip ([FieldTrip toolbox](http://www.fieldtriptoolbox.org/)): This is a MATLAB toolbox for MEG, EEG, iEEG, and NIRS analysis. It offers preprocessing techniques and analysis methods, such as time-frequency analysis or source reconstruction using dipoles. It supports the data formats of all major MEG systems and of the most popular EEG, iEEG, and NIRS systems and new data formats can be added easily. You can implement your own analysis protocols in a MATLAB script using FieldTrip high-level functions. FieldTrip is open-source software under the GNU general public license.
3. MNE ([MNE — MNE 0.20.0 documentation](https://mne.tools/stable/index.html)): Open-source Python software for exploring, visualizing, and analyzing human neurophysiological data: MEG, EEG, sEEG, ECoG, and more. The software has a growing community behind and several python packages have been developed to add a graphical user interface, automatic bad channel detection, and interpolation, independent component analysis (ICA), connectivity analysis, general-purpose statistical analysis of MEG/EEG signals, or a python implementation of the Preprocessing Pipeline (PREP) for EEG data among others.