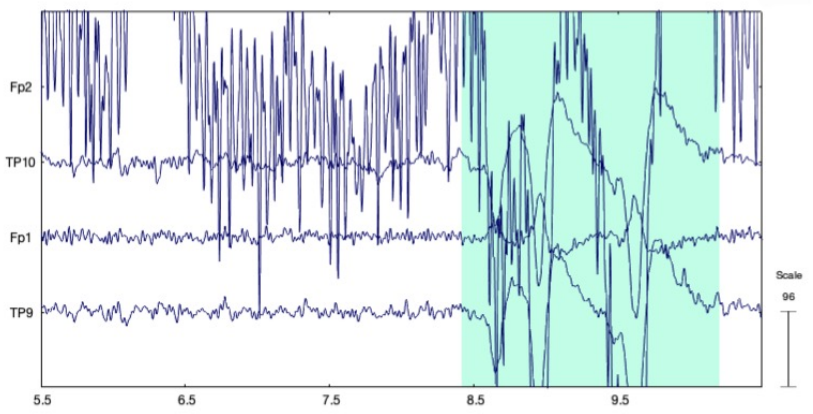
ASR vs. ”ground truth”

Raw data



45 files for training

	% rejection	vs R1	vs R2	vs R3	Accuracy
R1	43	n/a	78.7	77.9	78.3
R2	46	78.7	n/a	75.9	77.3
R3	35	77.9	75.9	n/a	76.9
No rejection	0	56.9	55.4	66.1	59.5 (55.4-63.0)
ASR (11)	40	80.1	77.8	77.4	78.4 (76.2-80.6)
Spec (10)	28	72.7	70.9	75.9	73.2 (71.1-75.2)
Data limit (60)	51	68.1	65.3	65.6	66.3 (62.6-70.1)

44 files for testing

	% rejection	vs R1	vs R2	vs R3	Accuracy
R1	37	n/a	80.7	79.7	80.2
R2	37	80.7	n/a	78	79.4
R3	30	79.7	78	n/a	78.8
ASR (11)	31	81.9	82.4	80.6	81.6 (79.5 83.6)

A. Delorme and J. A. Martin, "Automated Data Cleaning for the Muse EEG," 2021 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2021, pp. 1-5, doi: 10.1109/BIBM52615.2021.9669415.

Labeling components using ICLabel

ICLabel Website and Label Collection

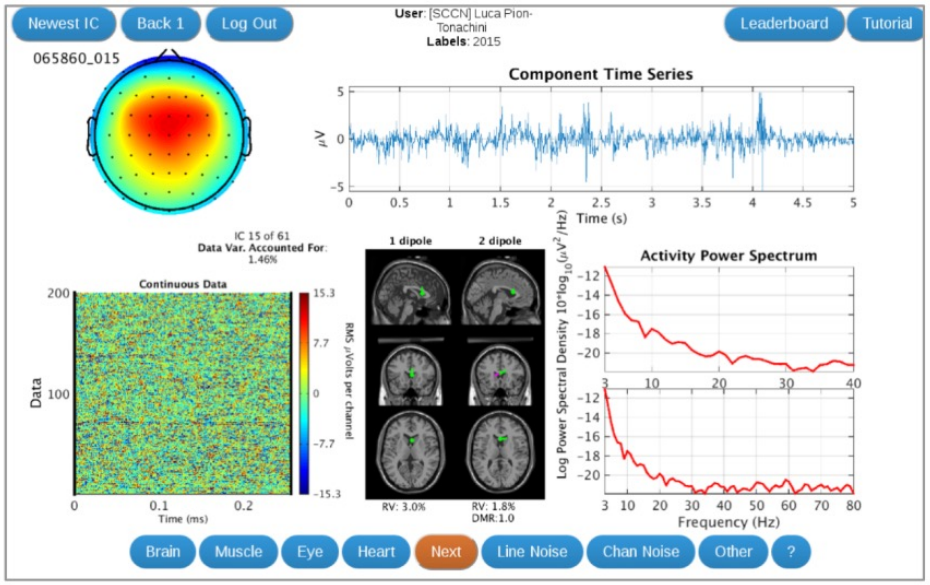
Summary: ask others to help out with labeling EEG components.

Website: labeling.ucsd.edu

Have experts from the SCCN and elsewhere label a subset.

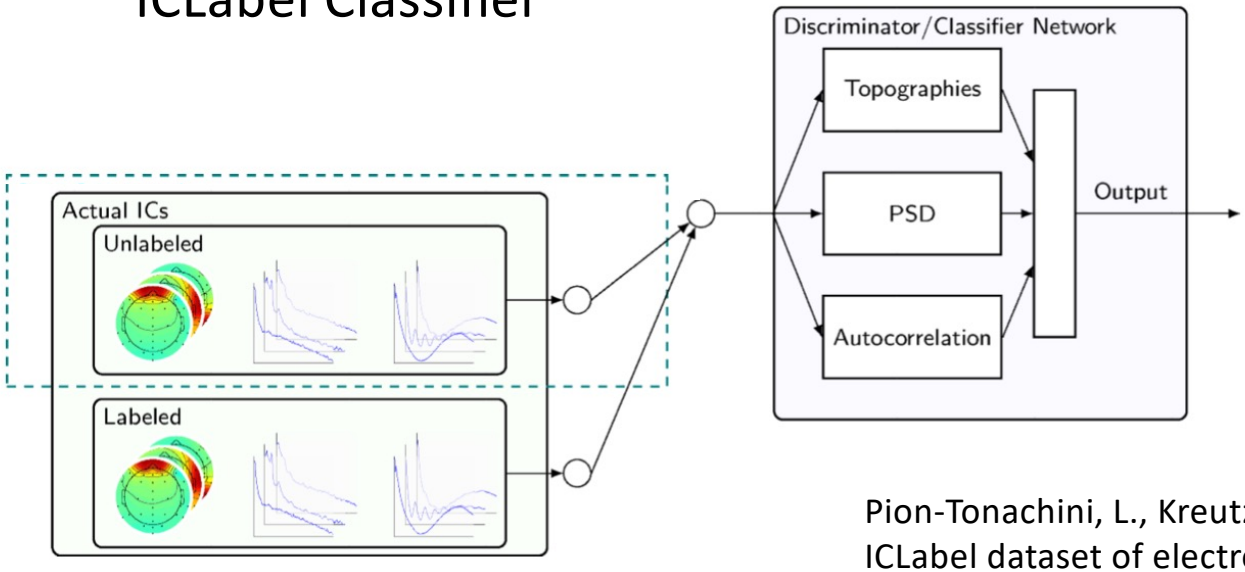
Ask the EEGLAB community to help label a larger subset.

Currently 328 contributing users and 34,000+ submitted labels.

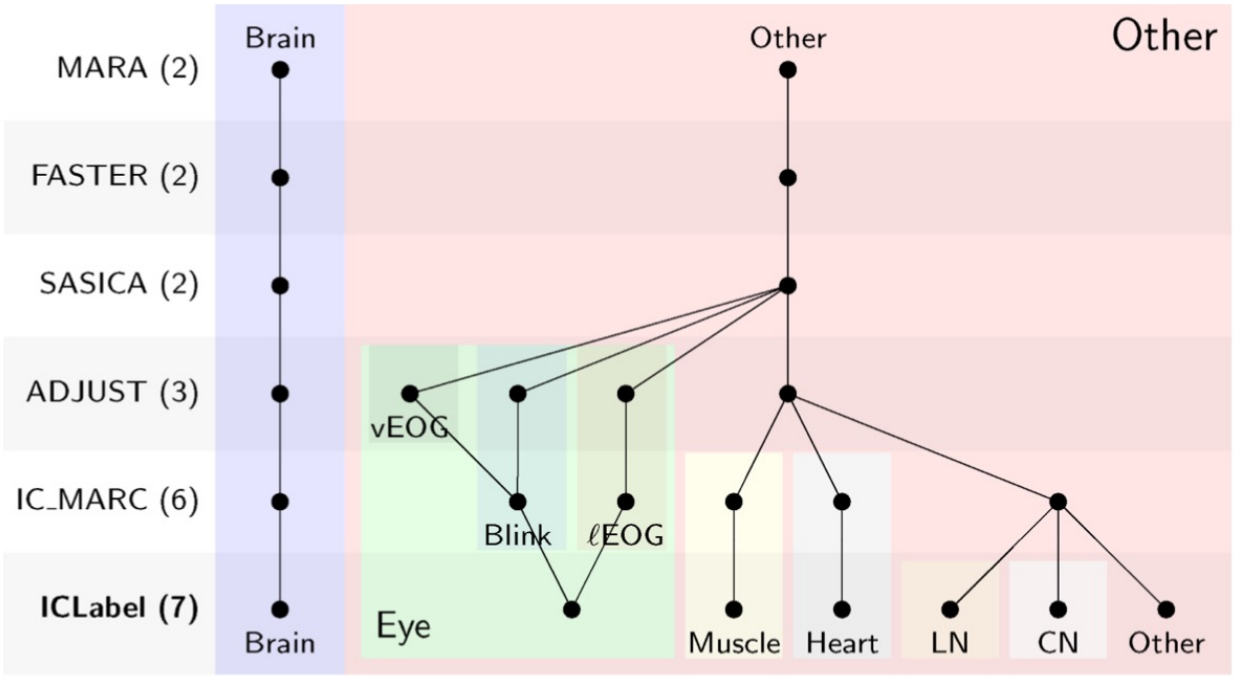


Has been adapted for educational use as well.

ICLabel Classifier



Pion-Tonachini, L., Kreutz-Delgado, K., & Makeig, S. (2019). The ICLabel dataset of electroencephalographic (EEG) independent component (IC) features. *Data in Brief*, *25*. https://doi.org/10.1016/j.dib.2019.104101



- Every method listed here is available as an EEGLAB plugin!

ICLabel Website

Purpose of the website:

Gather IC labels to accompany our vast collection of datasets.

labeling.ucsd.edu/tutorial