

## **USING WEKA TO EXPERIMENT WITH DIFFERENT CLASSIFIERS**

Weka is an open-source Java machine learning package from the University of Waikato. It provides many standard algorithms via both a set of GUIs and as an API for easily incorporating into your own Java projects. You can read more here: <http://www.cs.waikato.ac.nz/ml/weka/>

Make yourself a weka copy by copying /usr/ccrma/courses/mir2010/weka/weka-3-6-2.zip and unzipping into /scratch/.

Launch weka by running `java -Xms512M -Xmx1024M -jar weka.jar` (Xms and Xmx set the starting and maximum Java virtual machine memory sizes, respectively)

If you want, you can download the Explorer Guide from <http://prdownloads.sourceforge.net/weka/ExplorerGuide-3-5-8.pdf?download> to walk through the features of the GUI, or see other tutorials on the Weka homepage to get started.

## **MIR EXPERIMENTATION**

Save one of your Matlab feature-extracted datasets as a .CSV file (one datapoint per line, with features followed by the class; see "help csvwrite") and load it into the Explorer to work with it. Try repeating your experiments with drum classification, and try different classifiers. For example, try comparing kNN (called IBk in Weka) and AdaBoost, using cross-validation accuracy.