

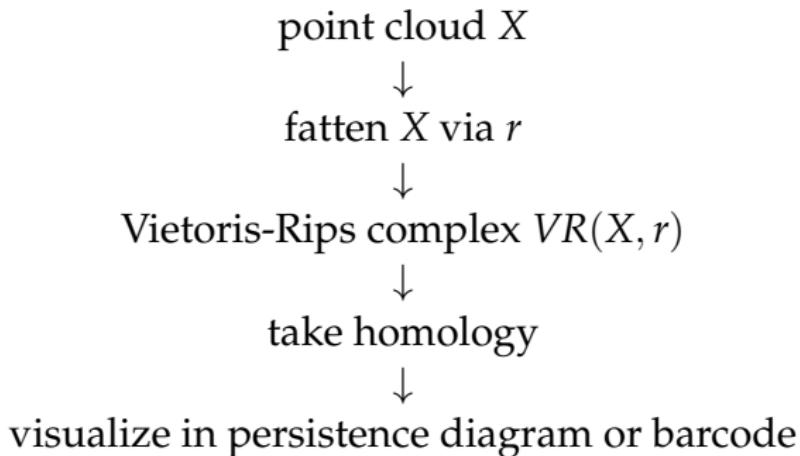
# Interactive software for topological data analysis

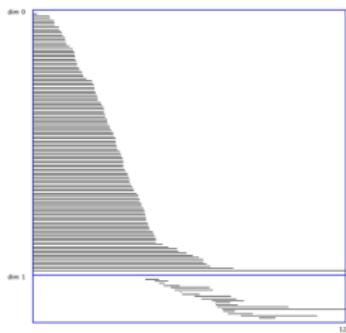
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Joint Meetings 2017

The persistent homology pipeline:





## **JavaPlex:**

software package for TDA, written in Java, building on JPlex.

## **Processing:**

IDE and programming language, well-suited to visualization.

Can run JavaPlex within Processing. Mikael Vejdemo-Johansson wrote a neat demo of this, `javaplexDemo.pde`. This was my starting point.

## **My goals:**

- ▶ interactive: add and remove points easily
- ▶ visual: plot barcodes in a nice way
- ▶ immediate: see how barcode changes
- ▶ embody: use as a piece of a larger input/output

[demo in Processing...]



[github.com/lukewolcott/InteractiveJPDwB](https://github.com/lukewolcott/InteractiveJPDwB)