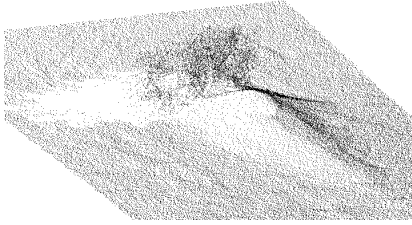
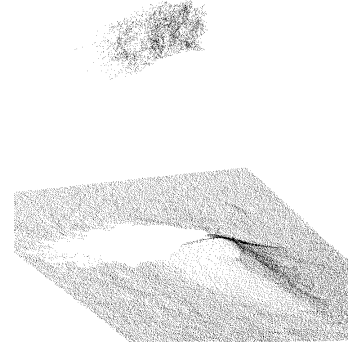


## Raw LiDAR data (XYZ)

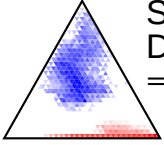


**Step 1: Preparation  
of at least one  
example of each class**  
[Cloud Compare](#)

## Vegetation Sample



## Floor Sample



Step 2.5 (advanced option)  
Density profiles at various scales  
⇒ Refine the choice of scales  
[density](#)

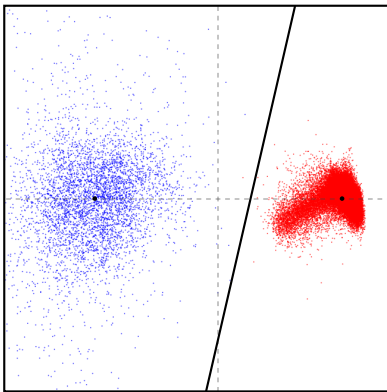
Multiscale files  
– vegetation.msc  
– floor.msc

**Step 2: Choice of a set of scales**  
(ex: from 4cm to 20cm every 2cm)  
[canupo](#)

**Step 3: Builds a classifier for separating the classes**  
[suggest\\_classifier\\_lda](#)

(advanced option: provide unlabelled points from the whole scene.msc for better results)

Classifier proposal,  
SVG graphics file



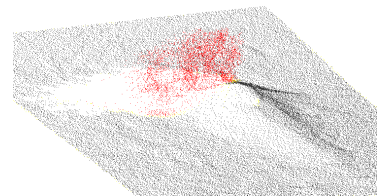
Step 3.5 (advanced option)  
Open, review and edit the classifier (with [Inkscape](#))  
Shift and/or add more points to the decision  
boundary to make it non-linear, etc.

**Step 4: Validation**  
[validate\\_classifier](#)

(advanced option: specify class  
numbers for automated  
multi-class scenarios)

Ready-to-use classifier,  
PRM parameters file

**Step 5: Classification  
of the whole scene**  
[classify](#)



Step 4.5 (advanced option) [combine\\_classifiers](#)  
Perform steps 1-4 on samples from other classes  
Then combine the multiple binary PRM files  
into a single multiclass PRM file

**Classification of new scenes  
with the same classifier**

[canupo, classify](#)

(advanced option: compute the multiscale  
and classes on selected “core” points  
for faster computations at the cost of less  
precision. [subsample](#))

