Logistic regression to find cells at the border

The goal is to Identify cells at the edge (if any edge is visible)

I used logistic regression on features from training data related to cells at border and in the interior to calculate the prob that a selected cell is at the edge. See Folder

CLASSIFY\_BORDERCELLS/LOGISTIC REGRESSION

Code: CLASSIFY\_BORDERCELLS/LOGISTIC REGRESSION/MATLAB folder. Main code file is 1\_MAIN

Training data: CLASSIFY\_BORDERCELLS/LOGISTIC REGRESSION/TRAINING\_DATA

I selected manually the voronoi rois realted to border cells and interior cells and then run the VORONOI\_NUCLEUS macro to obtain the ROIS nucleus-voronoi area.

Then I run the DATA macro to calculate all values needed for extracting the features data.

Features

* Distance centroid Nucleus-Voronoi (D)
* Nuclear max edge to edge distance (Nf)
* Voronoi max edge to edge distance (Vf)
* Combined features for normalization:
  + D/Nf
  + Vf/Nf

 