<https://en.wikipedia.org/wiki/Otsu%27s_method>

<https://www.youtube.com/watch?v=ojapO75FV38>

**Thresholding**

Let us consider an image of dimension .

* Compute histogram and probabilities of each intensity level

→

The probability of finding a pixel intensity is

* Global mean and global variance

* Let us suppose we select a threshold T, with a value of .

Let and the two classes of pixels.

The probabilities

The class (conditional) means are:

* Otsu’s criteria: maximize the between-class variance

Remark: To verify the expressions:

* Process:
* Go through
* Compute , and get the maximum (through each iteration, compare current variance with the previous one)
* The desired threshold is