

Process Description:

“Detection” takes in the image sequence(s) of interest, identifies the objects in each image, and returns information such as object positions and intensities.

Detection Method:

From the drop-down menu, choose which detection method you would like to use. In each setting interface, click on the help button for more information.

Current options:

“**Gaussian Mixture-Model Fitting**”: Use this algorithm to detect sub-resolution objects in 2D, e.g. single molecules or small molecular aggregates that are smaller than the diffraction limit (i.e. < 200 nm). The algorithm returns object coordinates, with sub-pixel localization, and object intensities.

“**Comet detection**”: Use this algorithm to detect most +TIP comets using a watershed segmentation algorithm.

“**Anisotropic Gaussian detection**”: Use this algorithm to detect +TIP comets with very highly elongated tails. For such comets, the comet detection method above has the tendency to generate false positives.

“**Nuclei detection**”: Use this algorithm to detect labeled nuclei e.g. using histone markers.