

u-segment Package Description

u-segment package is a MATLAB package for 2D cell segmentation. This package provides a series of methods to create masks for the movie which separate objects (e.g. cells) from the background. Masks are binary images which contain 1 where there is an object of interest (cell), and 0 where there is background.

It is associated with the paper, **Functional Hierarchy of Redundant Actin Assembly Factors Revealed by Fine-Grained Registration of Intrinsic Image Fluctuations**, *Cell Systems*, 2015, 1(1):37-50, written by Kwonmoo Lee, Hunter L. Elliott, Yubean Oak, Alex Groisman, Jessica D. Tytell, Gaudenz Danuser.

It consists of 4 steps, including optional steps, to create cell masks:

- (1) Generate Summation Channel.**
- (2) MSA (Multi-Scale Automatic) Segmentation.**
- (3) Trembling Correction.**
- (4) Mask Refinement.**