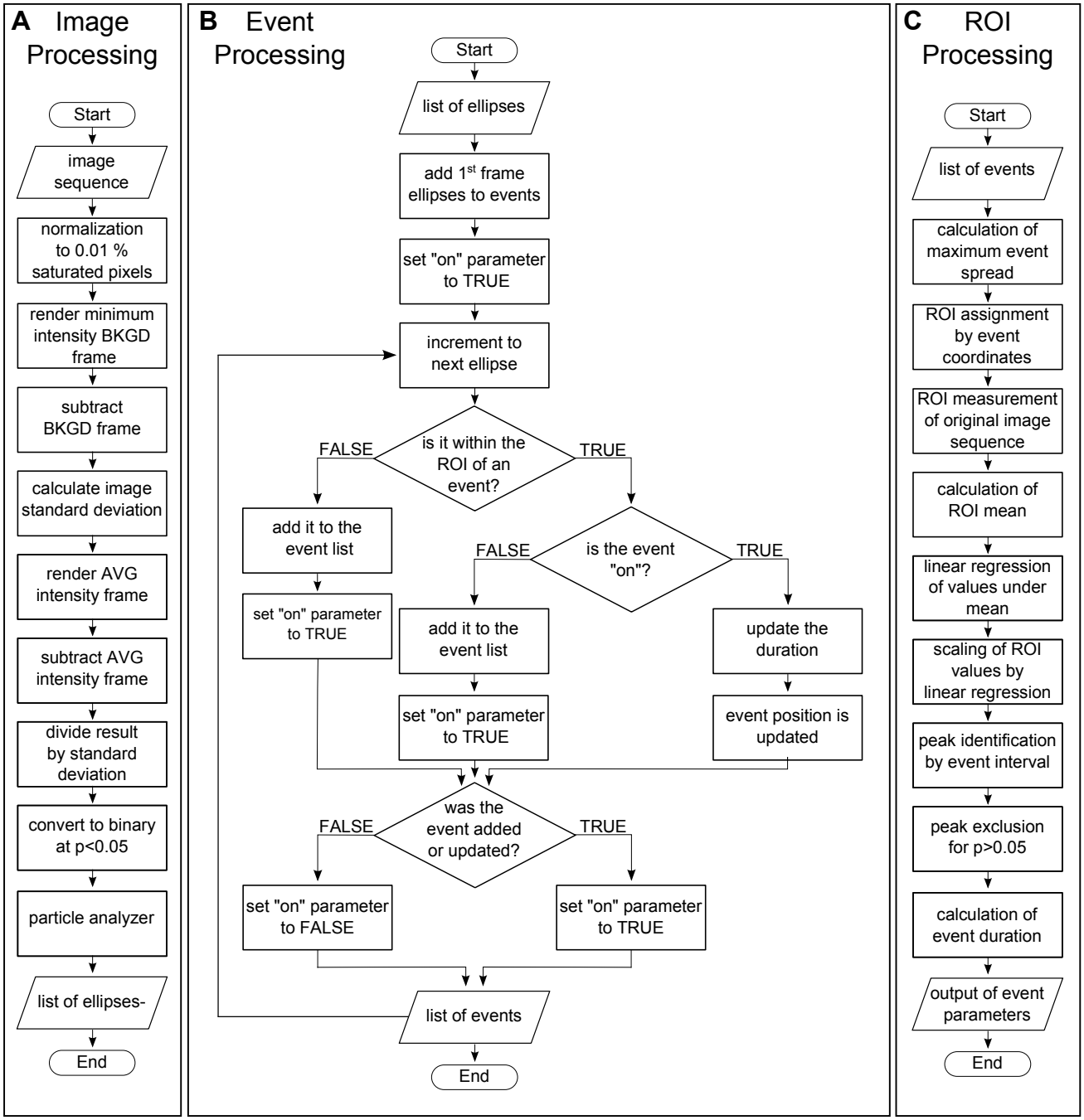
A Image Processing
Start
image sequence
normalization to 0.01 % saturated pixels
render minimum intensity BKGD frame
subtract BKGD frame
calculate image standard deviation
render AVG intensity frame
subtract AVG intensity frame
divide result by standard deviation
convert to binary at p<0.05
particle analyzer
list of ellipses-
End
B Event Processing
Start
list of ellipses
add 1st frame ellipses to events
set "on" parameter to TRUE
increment to next ellipse
is it within the ROI of an event?
FALSE
TRUE
add it to the event list
set "on" parameter to TRUE
is the event "on"?
FALSE
TRUE
add it to the event list
set "on" parameter to TRUE
update the duration
event position is updated
was the event added or updated?
FALSE
TRUE
set "on" parameter to FALSE
set "on" parameter to TRUE
list of events
End
C ROI Processing
Start
list of events
calculation of maximum event spread
ROI assignment by event coordinates
ROI measurement of original image sequence
calculation of ROI mean
linear regression of values under mean
scaling of ROI values by linear regression
peak identification by event interval
peak exclusion for p>0.05
calculation of event duration
output of event parameters
End