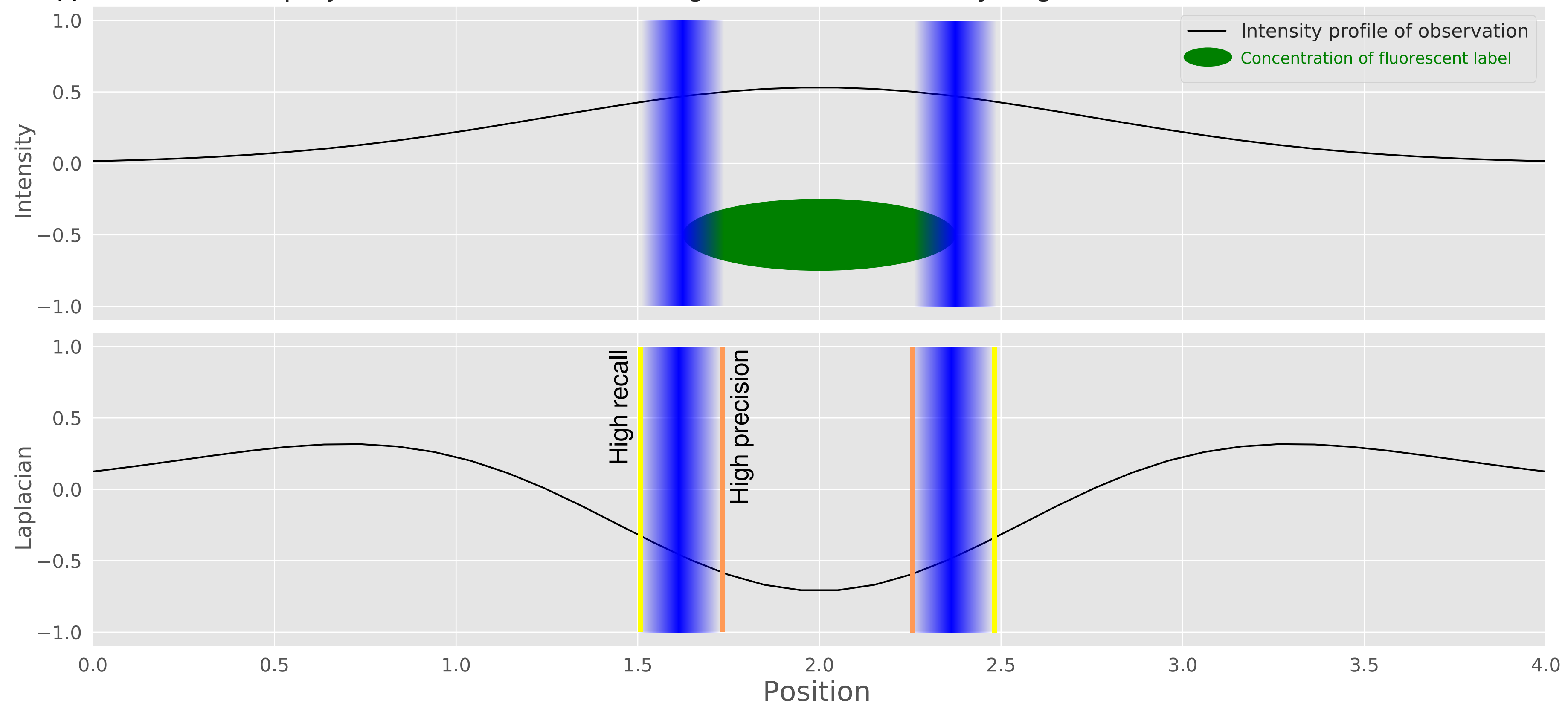
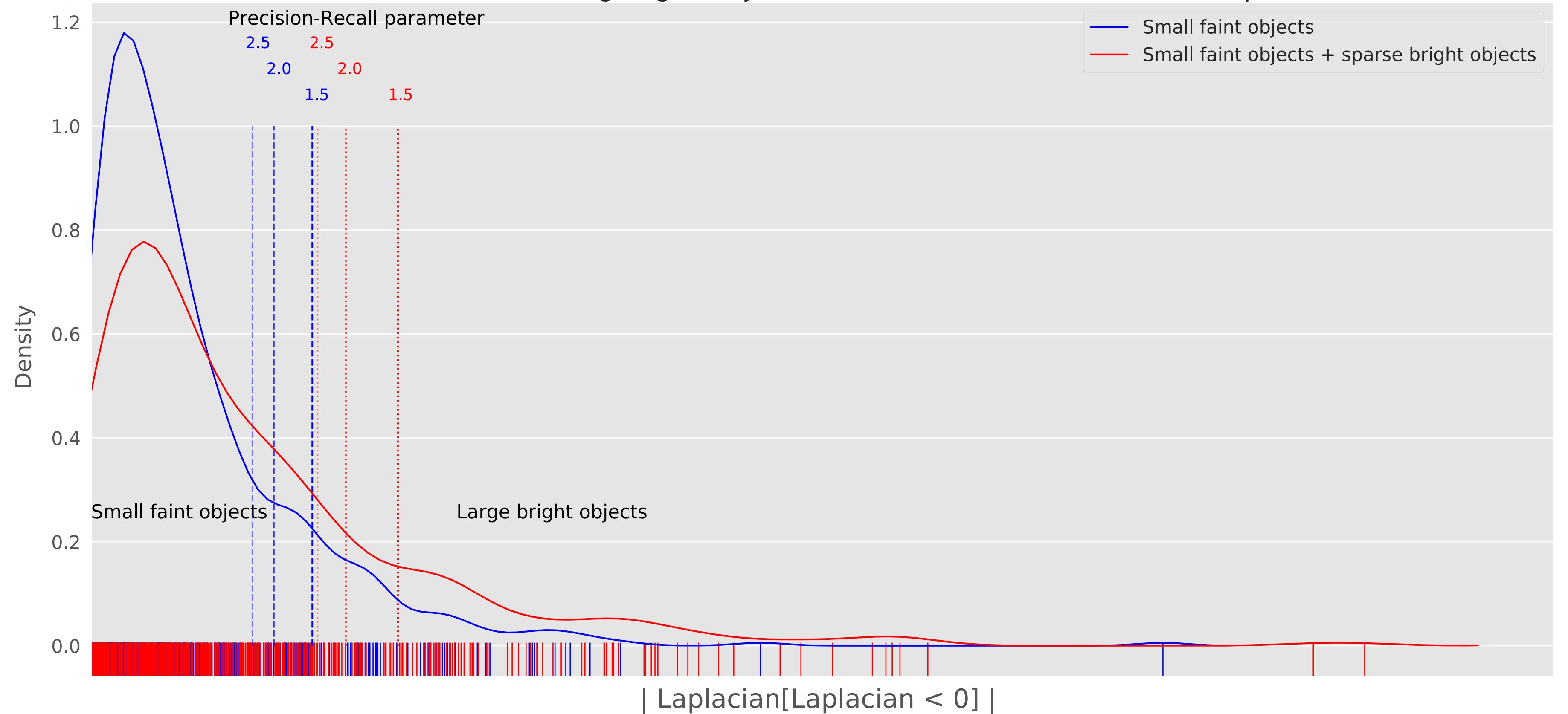


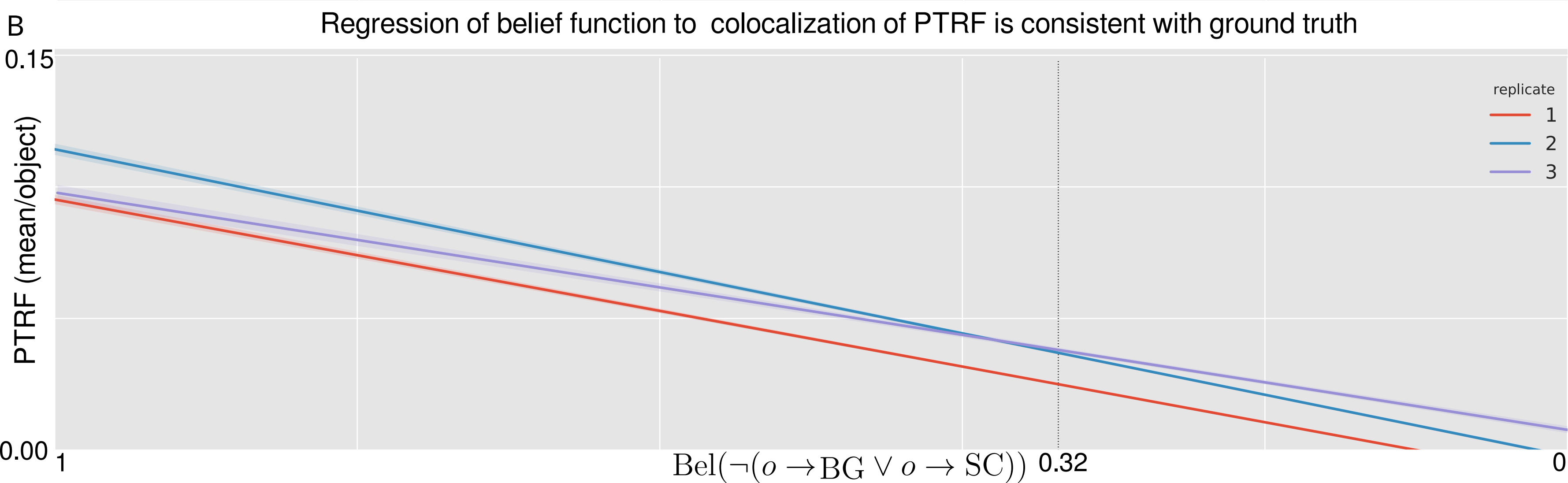
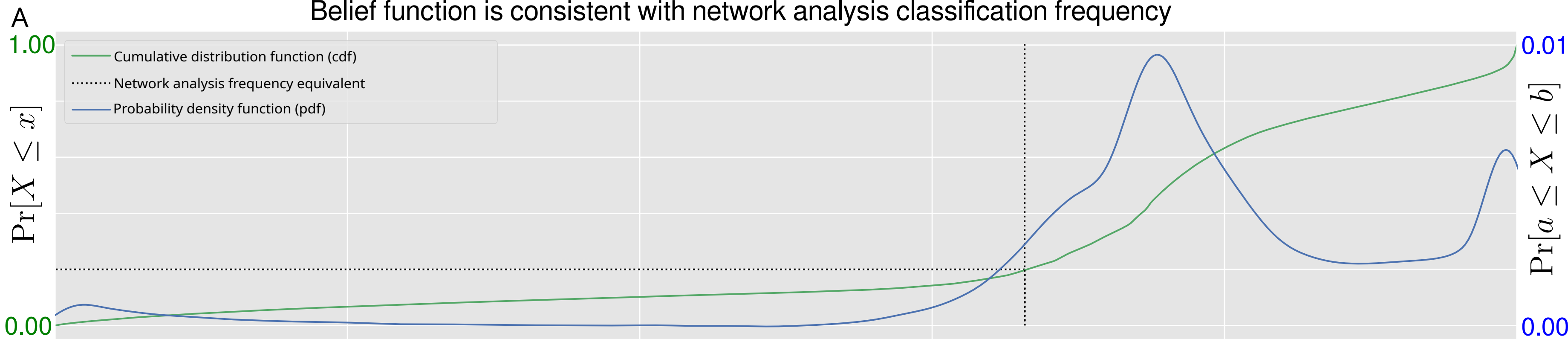


2D projection of 3D volumetric signal is demarcated by negative 2nd derivative.

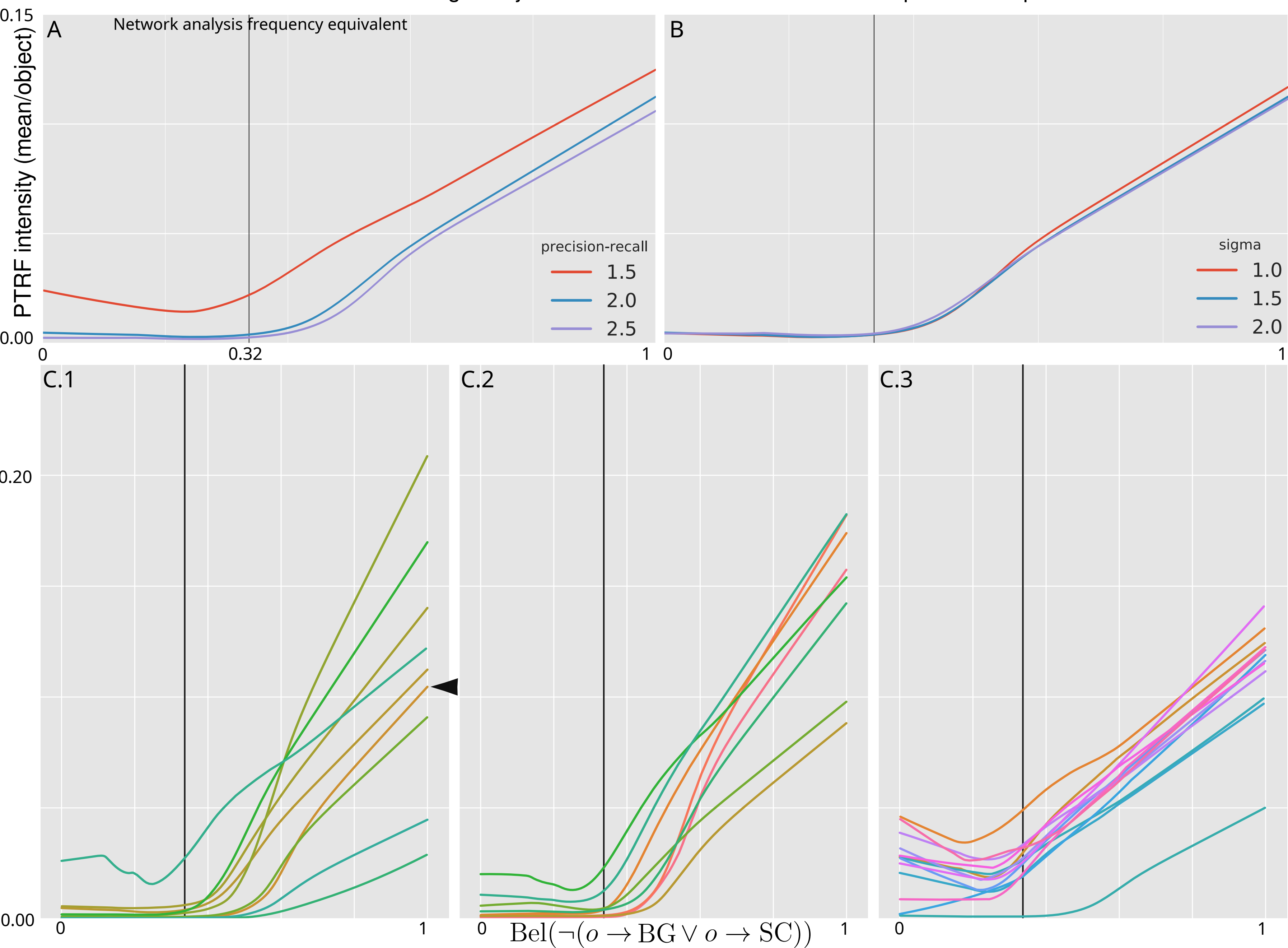


Kurtosis based z-scaling aligns object detection across distribution shapes



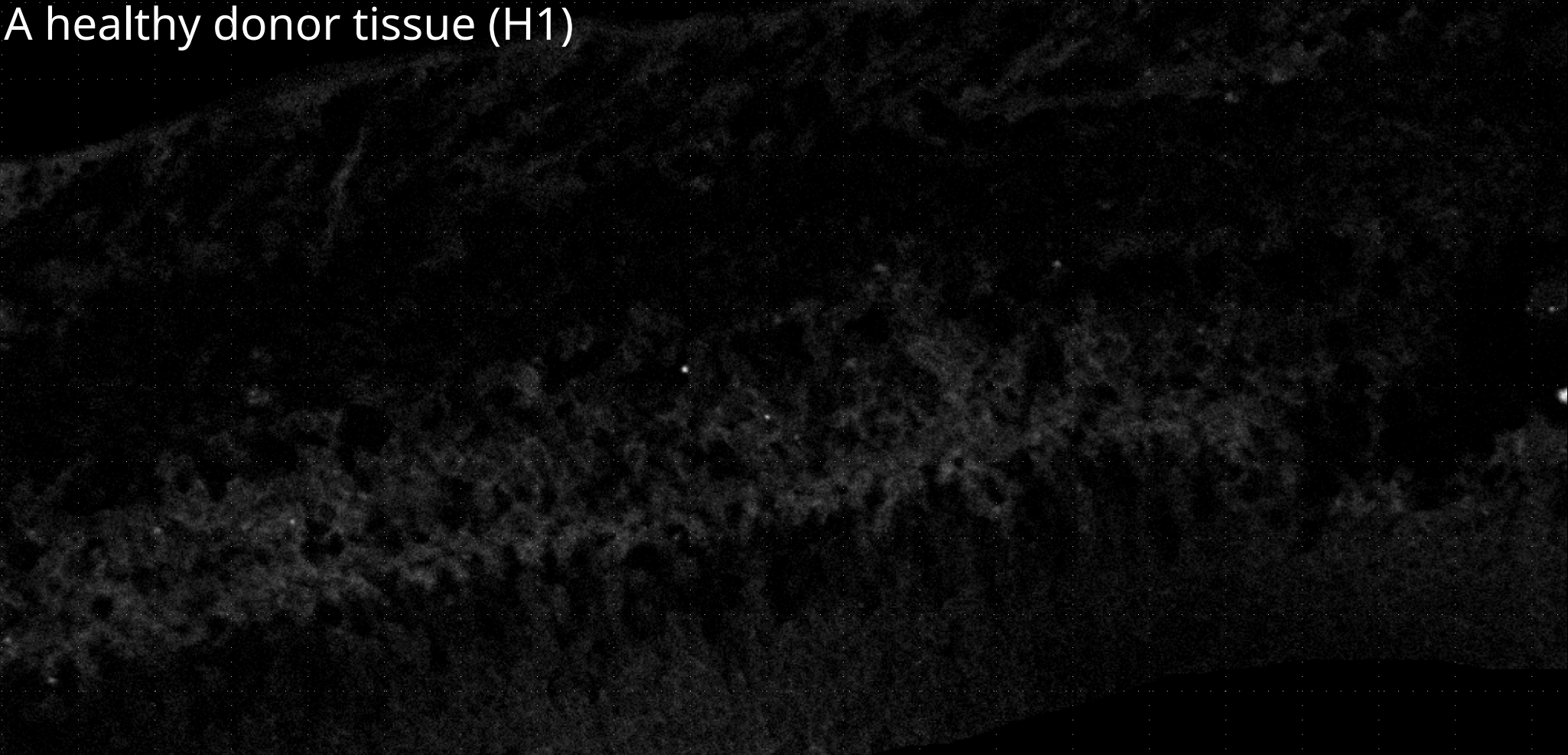


### Probabilistic labelling of objects in PC3PTRF is consistent across parameter space

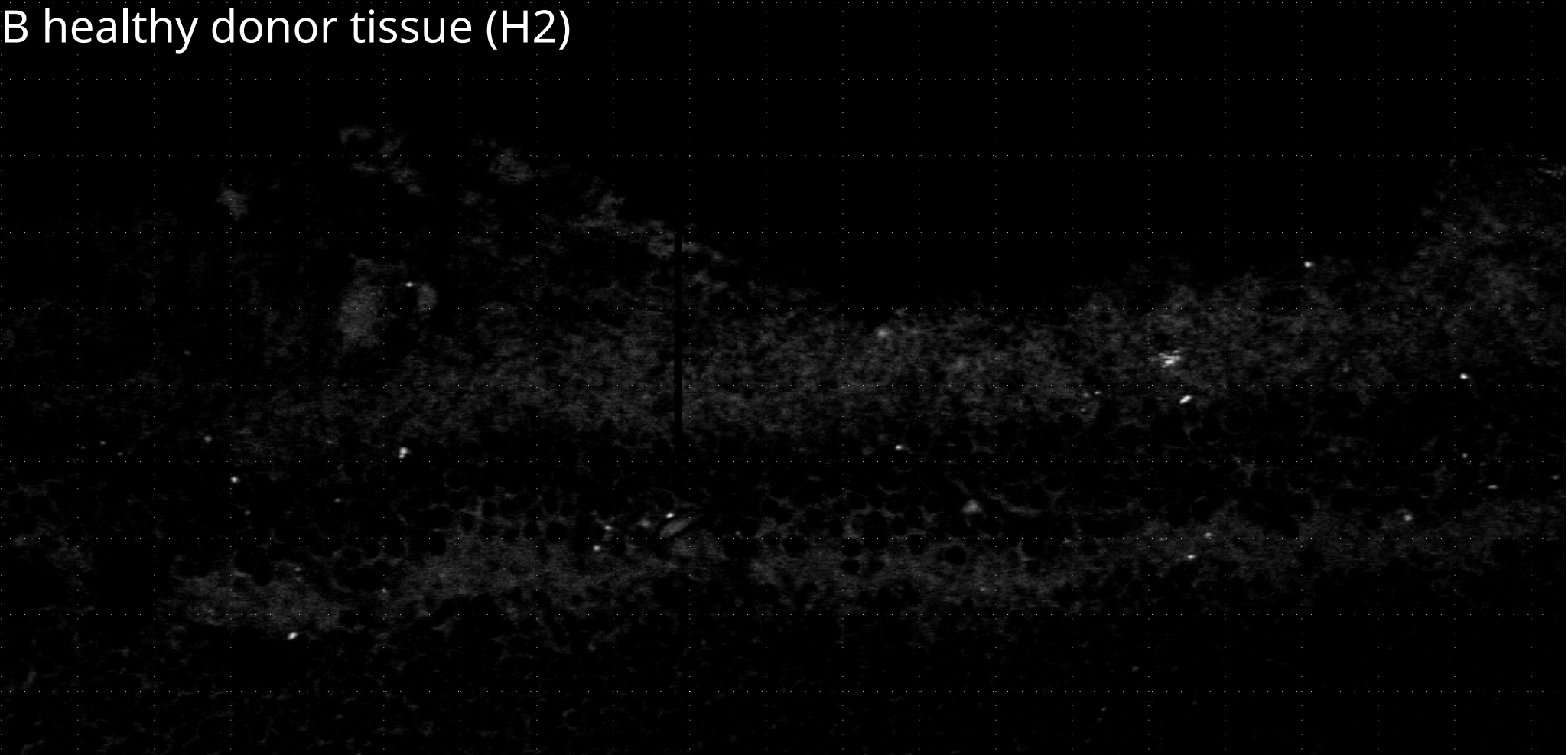




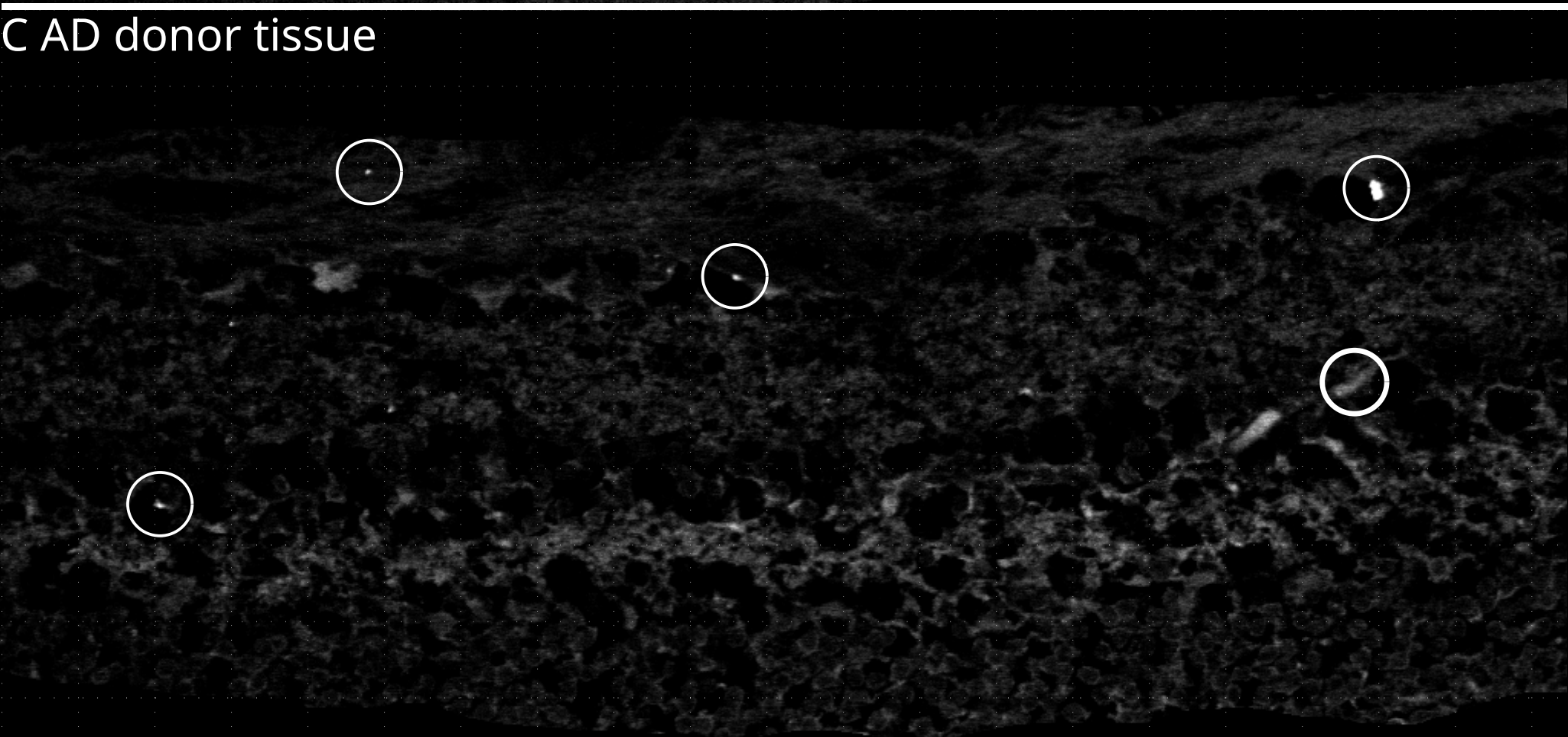
A healthy donor tissue (H1)



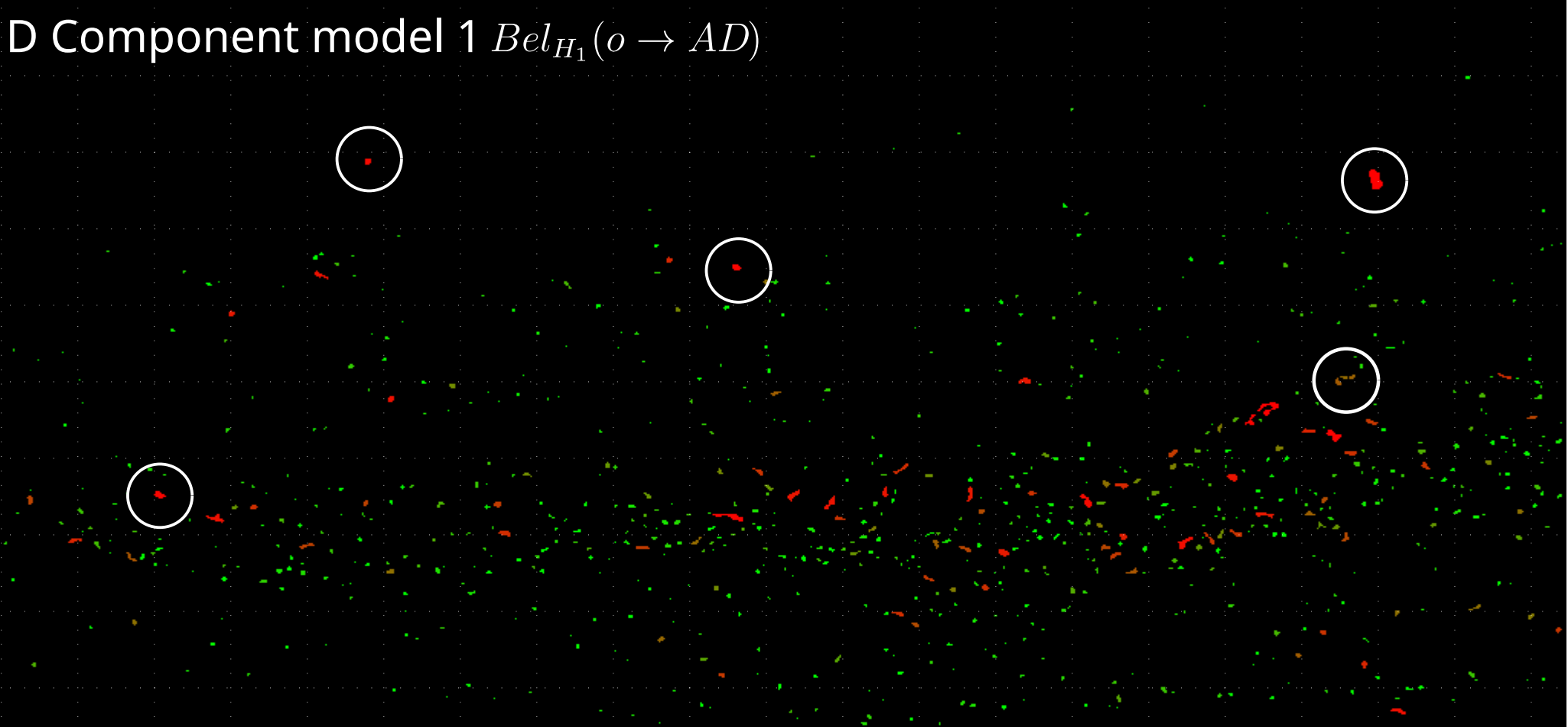
B healthy donor tissue (H2)



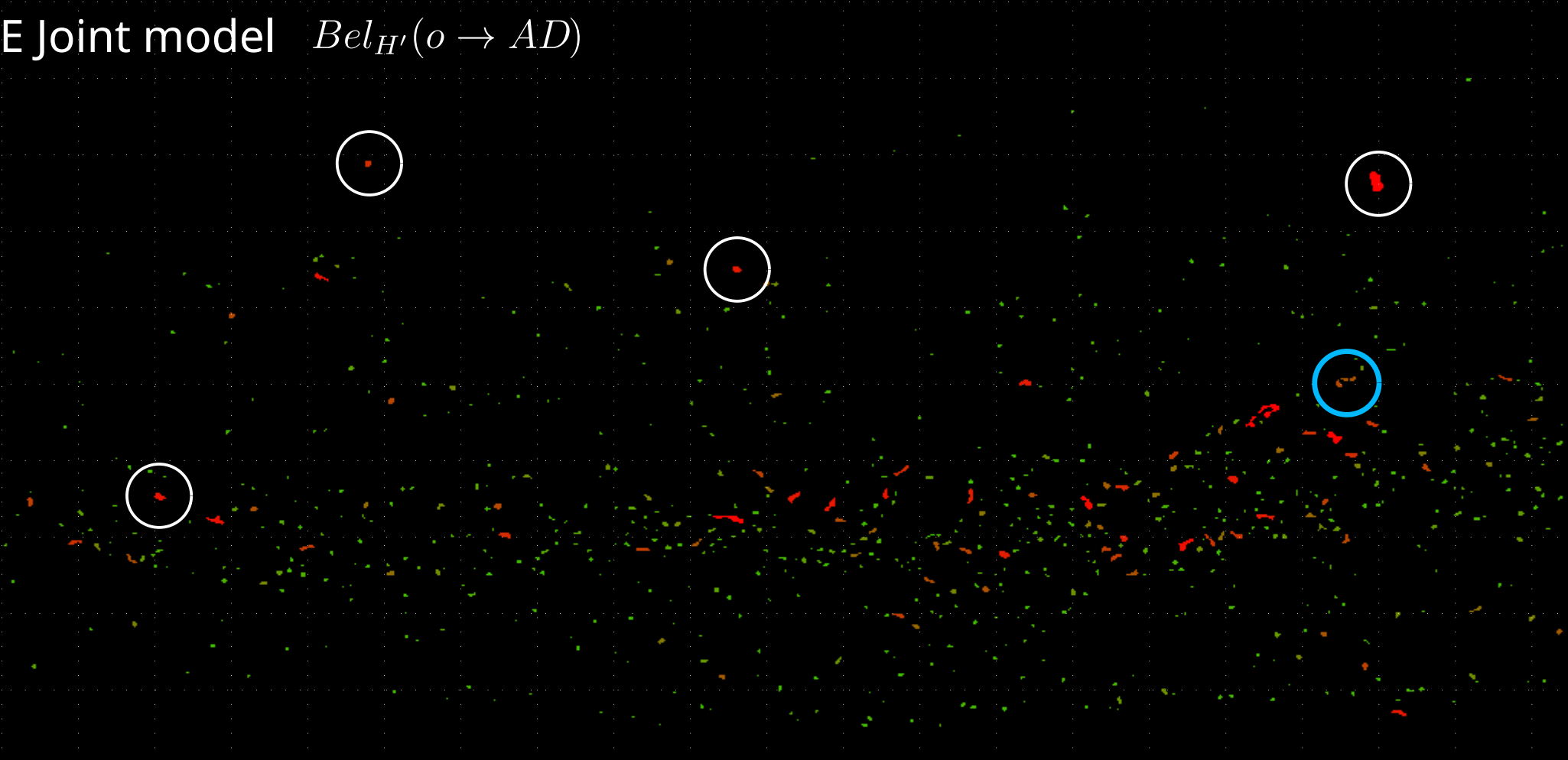
C AD donor tissue



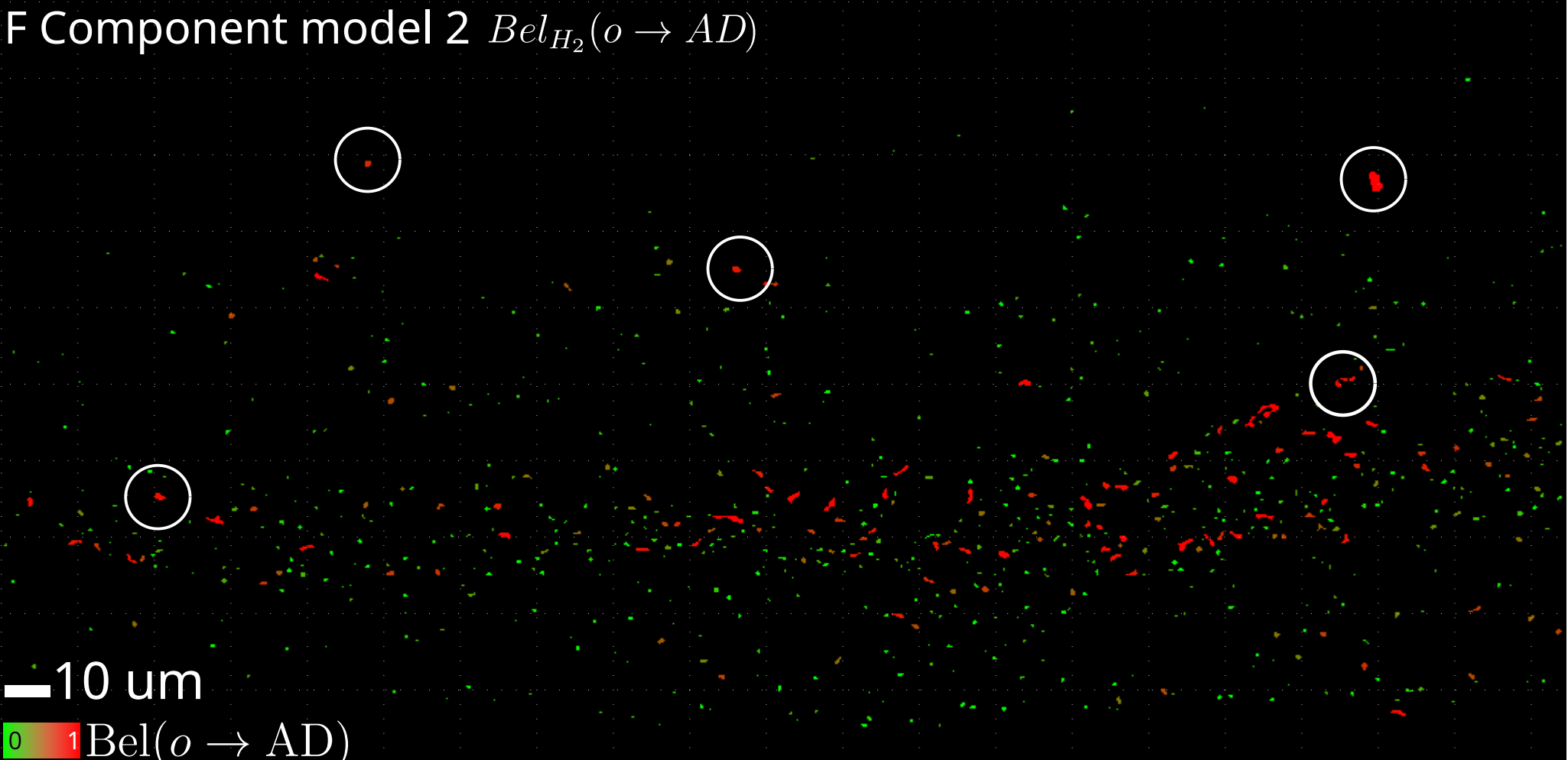
D Component model 1  $Bel_{H_1}(o \rightarrow AD)$



E Joint model  $Bel_{H'}(o \rightarrow AD)$

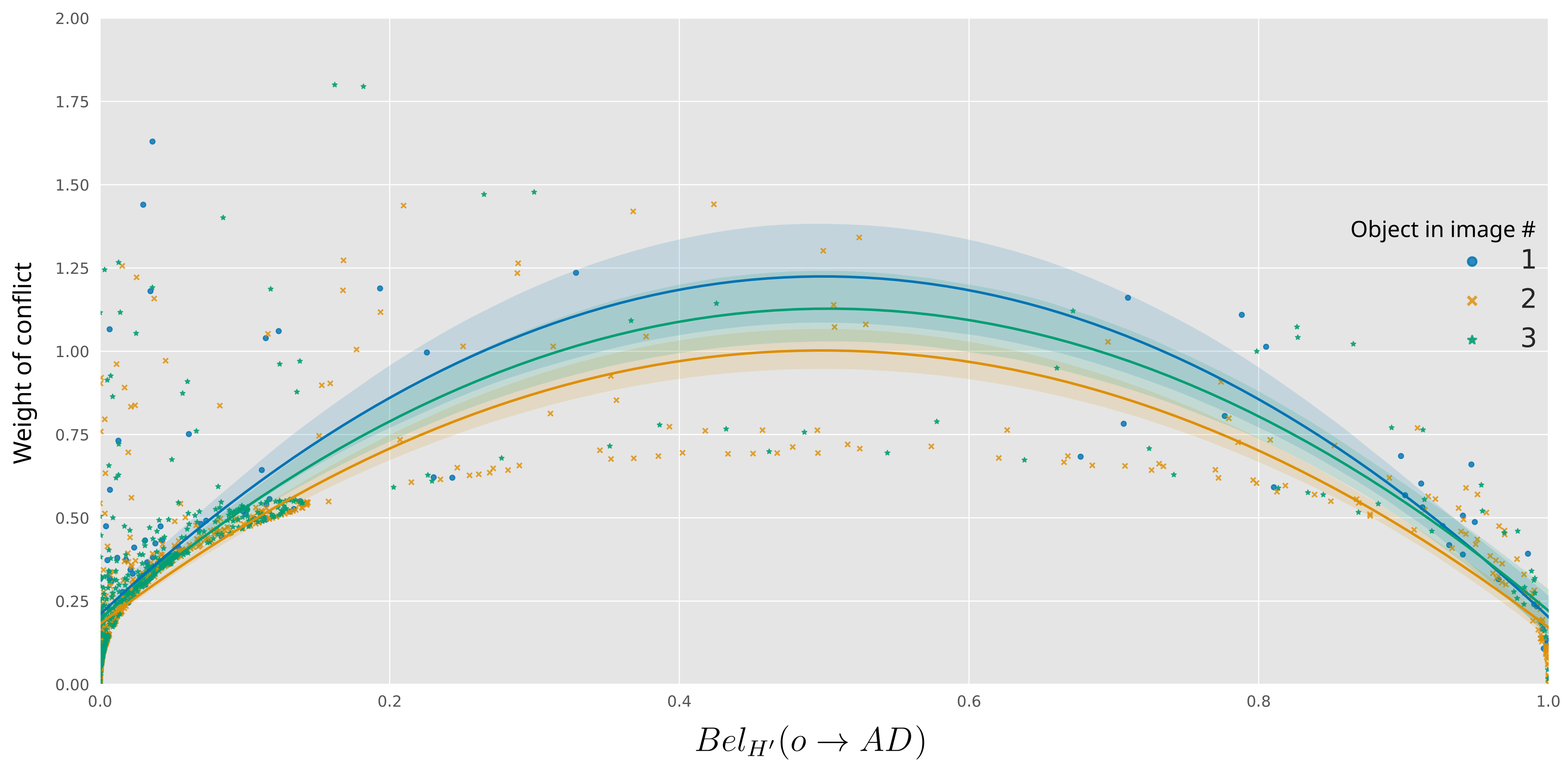


F Component model 2  $Bel_{H_2}(o \rightarrow AD)$



10  $\mu\text{m}$   
0 1  $Bel(o \rightarrow AD)$





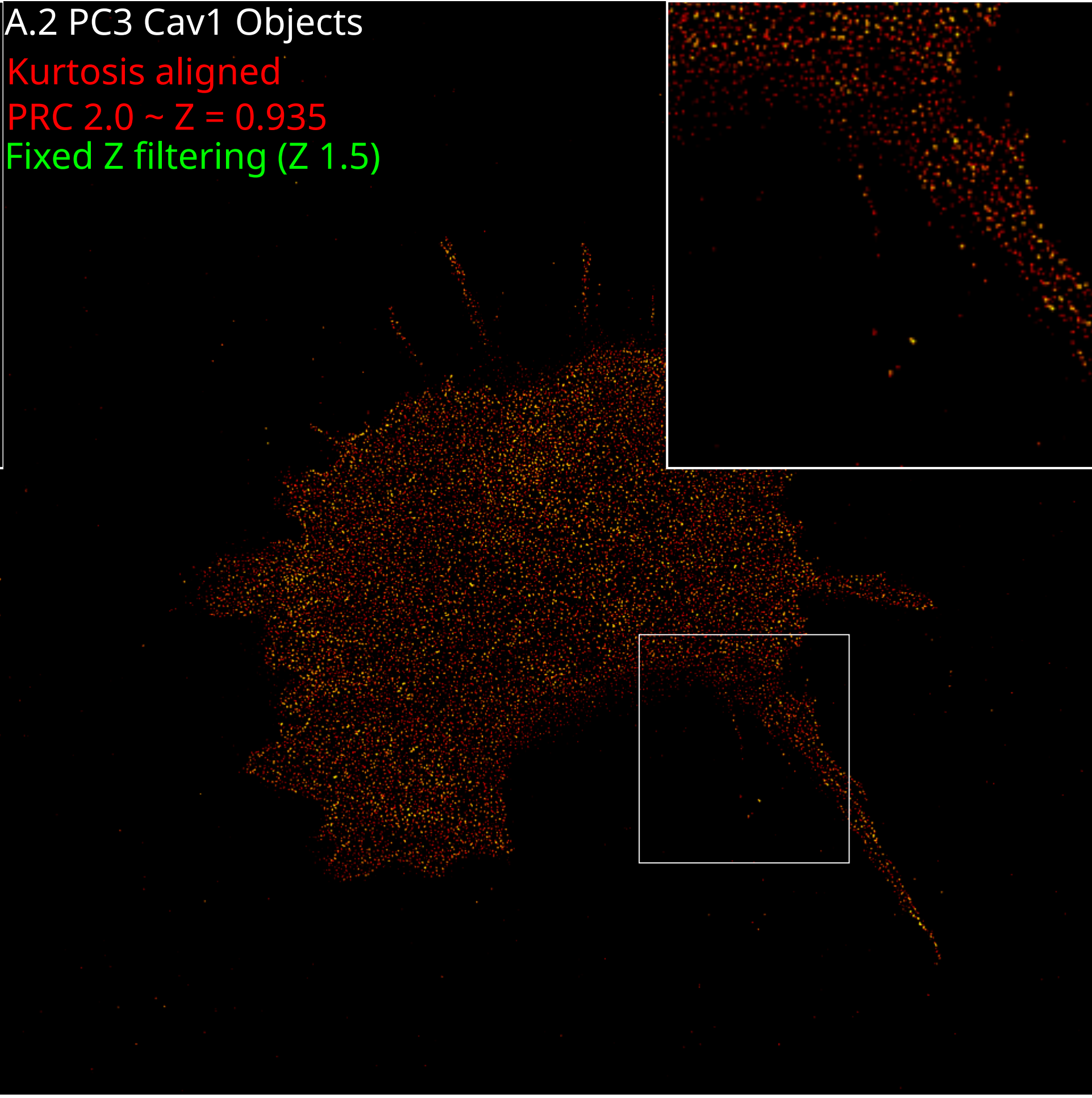
A.1 CRISPR Cav1 Objects

Kurtosis aligned  
PRC 2.0 ~  $Z = 1.22$   
Fixed Z filtering ( $Z = 1.5$ )



A.2 PC3 Cav1 Objects

Kurtosis aligned  
PRC 2.0 ~  $Z = 0.935$   
Fixed Z filtering ( $Z = 1.5$ )



A.3 PC3PTRF Cav1 Objects

Kurtosis aligned  
PRC 2.0 ~  $Z = 1.246$   
Fixed Z filtering ( $Z = 1.5$ )

