



What is the physical process that causes the formation of recently quenched galaxies in clusters? Given the results we found about recently quenched cluster galaxies on the mass—size plane (see previous result for more info), we tried to see if disc-fading could explain the mass—size relation of recently quenched cluster galaxies. We created model galaxies (plot to the left) composed of a disc and bulge, then faded the disc “outside-in” to replicate the way quenching proceeds in clusters.

In Matharu et al., (2020), we found that modeling a galaxy with a bulge+disc, and fading the disc from the “outside-in” can lead to the reduction in size and increase in bulge-dominance observed between star-forming and recently quenched cluster galaxies. However, more sophisticated modeling will be required to fully reproduce the structural properties of the observed recently quenched cluster galaxies. Go to the website below to find out more about this work.

