

Detecting Effects of Filaments on Galaxy Properties in the Sloan Digital Sky Survey III

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<https://sites.google.com/site/yenchicr/catalogue>

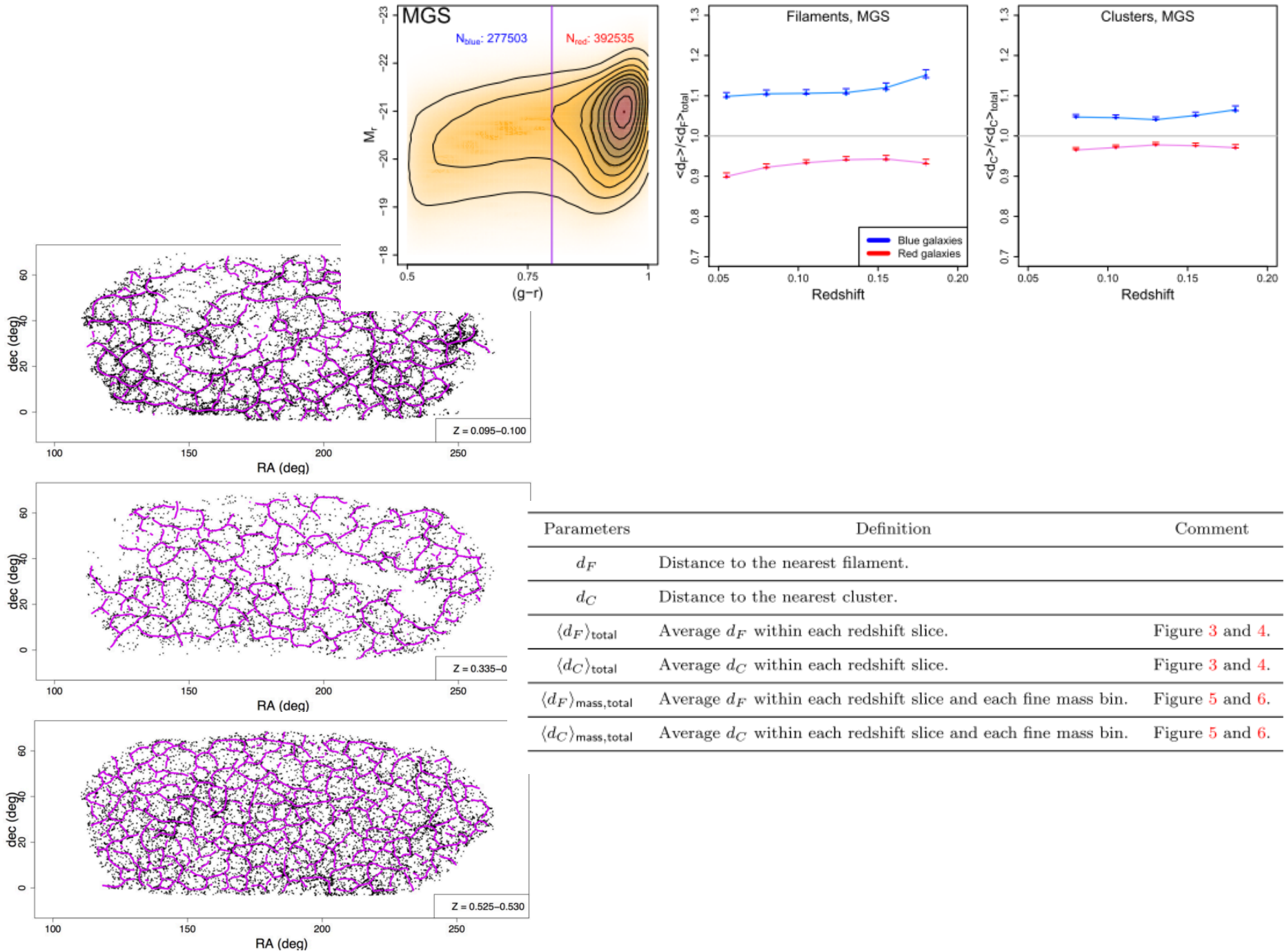
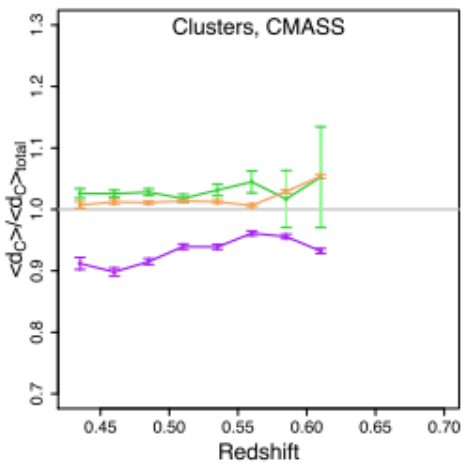
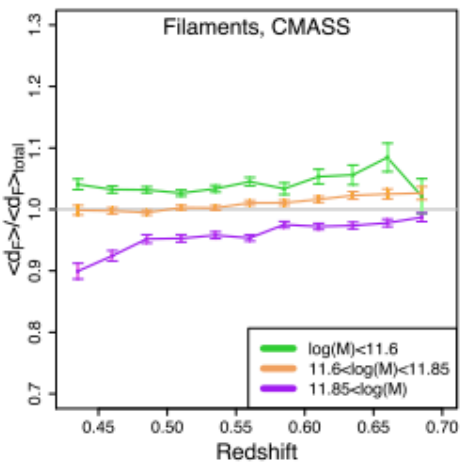
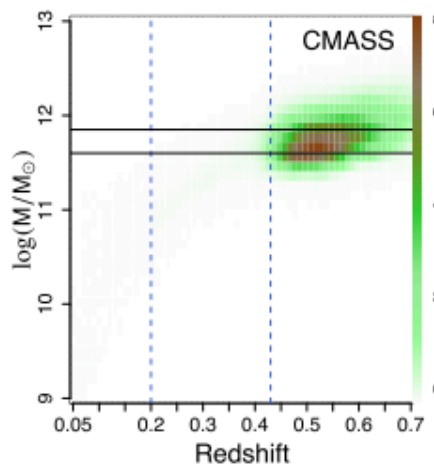
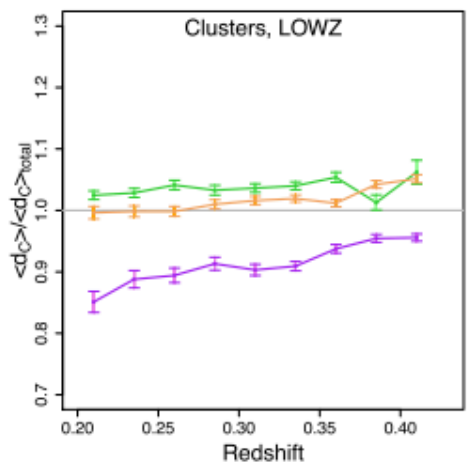
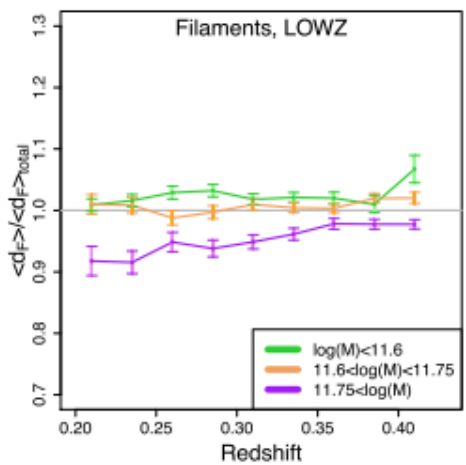
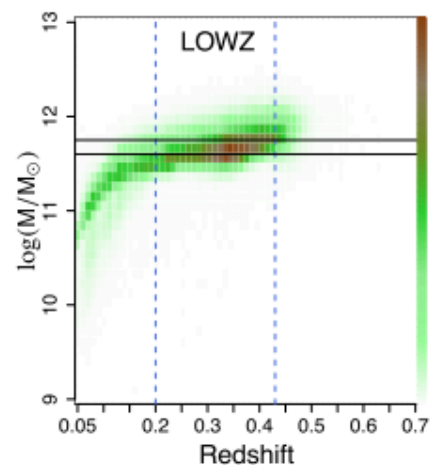
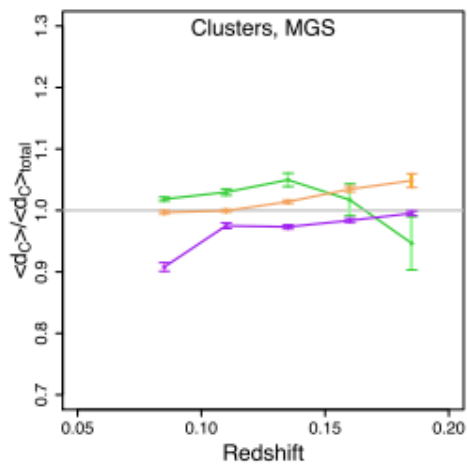
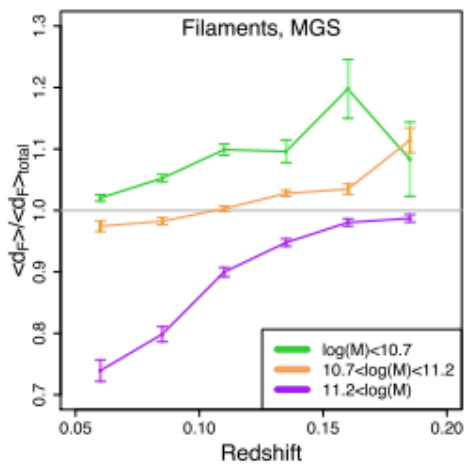
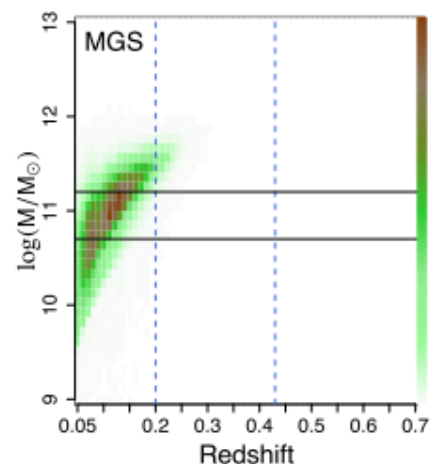
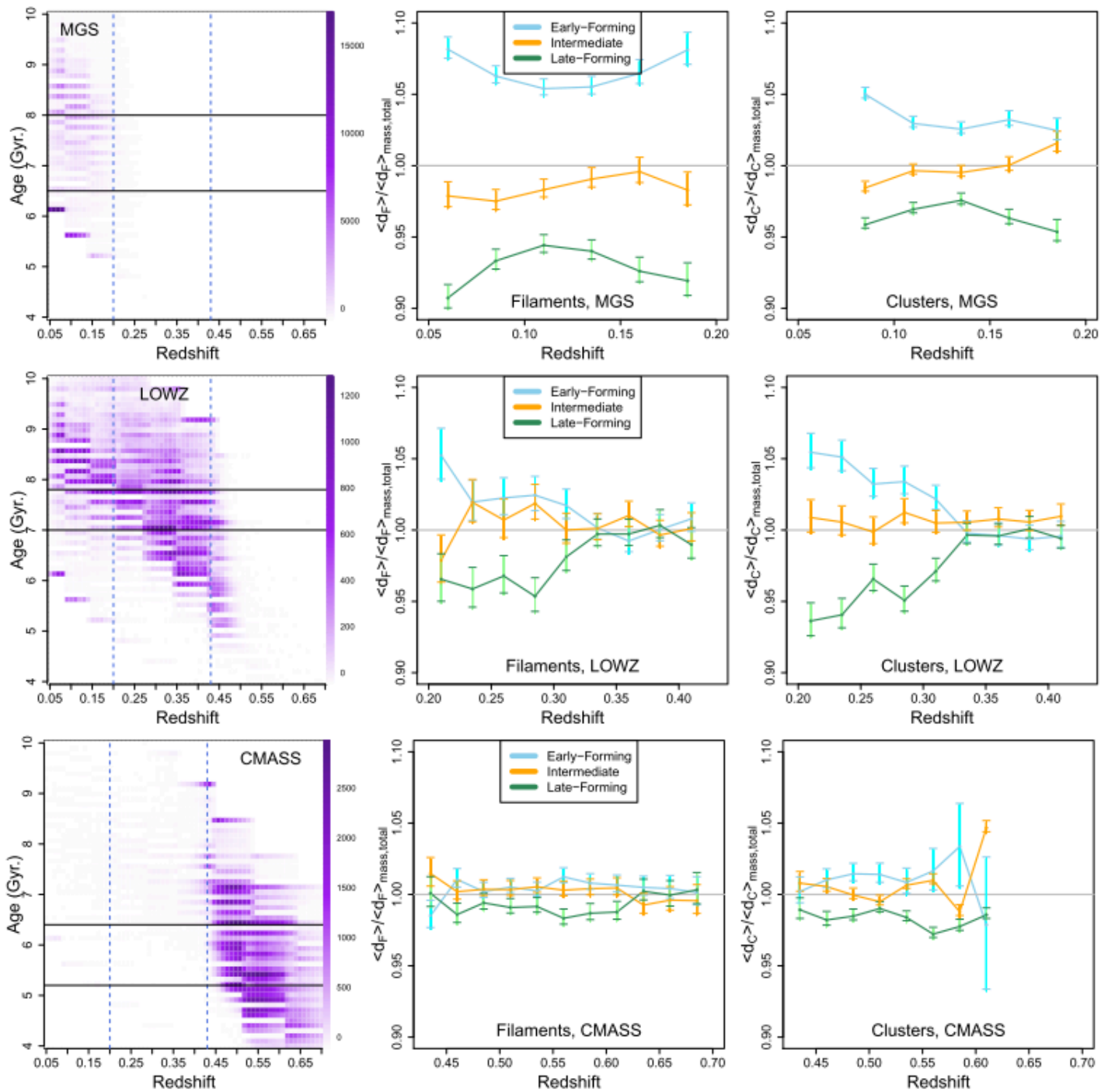
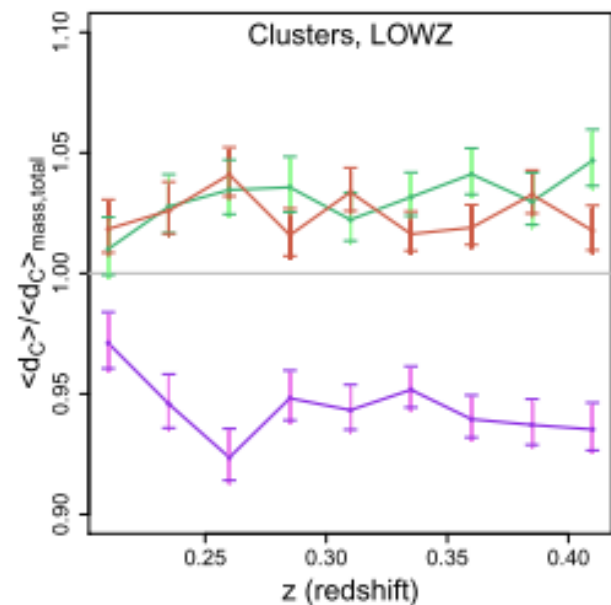
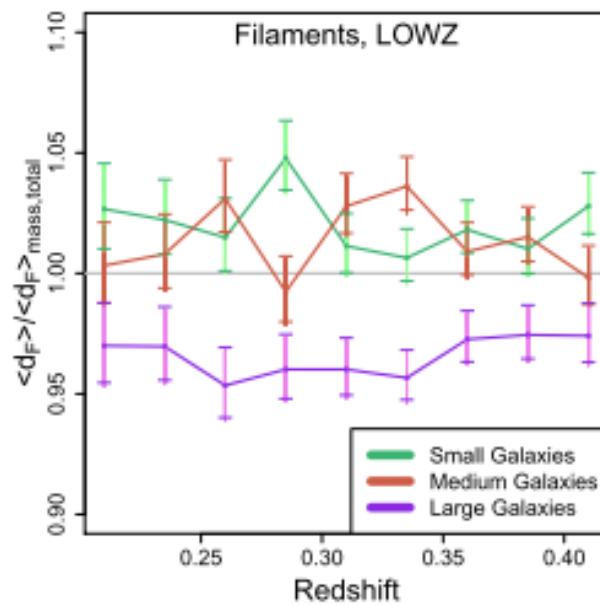
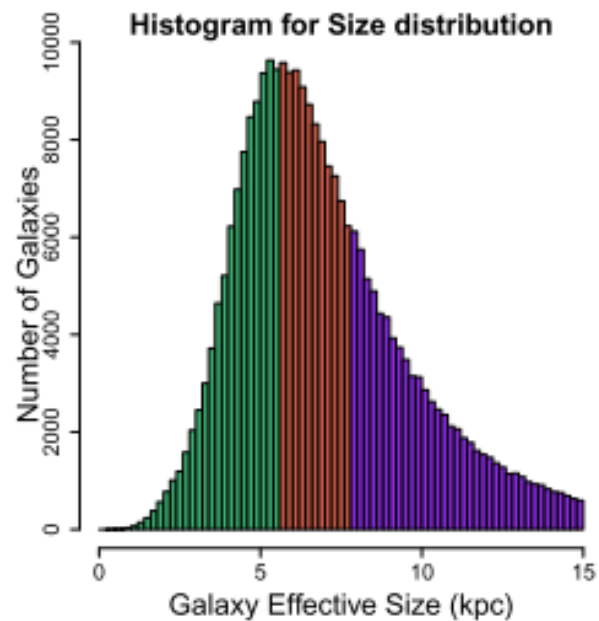


Figure 2. Examples of the filament catalogue in narrow redshift slices within the MGS, LOWZ, and CMASS samples, respectively. In all panels, we observe that galaxies are indeed concentrate around filaments.







Galaxies infalling into groups: filaments vs. isotropic infall

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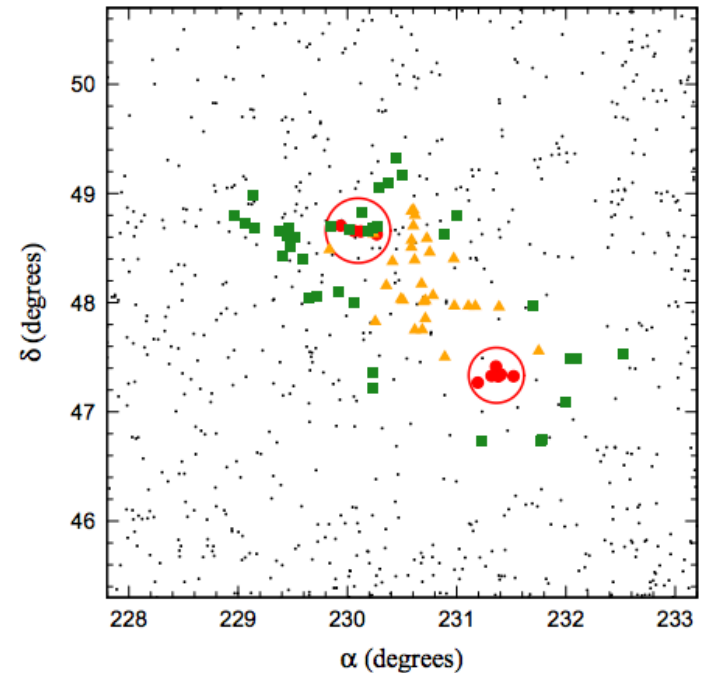
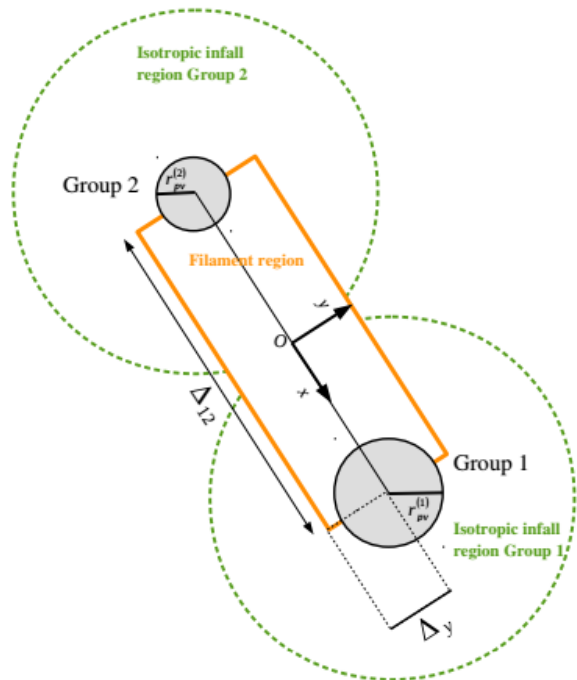


Figure 4. An example of two groups of galaxies in our sample and the galaxies we identify as infalling into them. Each group is marked by a circle which represents its projected virial radius. Galaxies belonging to each group are shown as filled red circles. Isotropically infalling galaxies are shown as green squares, while orange triangles represent galaxies in the filament region. Field galaxies are shown as black dots.

