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## Transforming Galaxies in Extreme Environments

Clusters of galaxies are harsh, hostile environments for their host galaxies. Gas rich, star forming galaxies are stripped of their gas, dark matter, and stars before eventually being transformed to passive and gas poor galaxies. The process of transformation is often dramatic and is not well understood. For instance, a significant fraction of cluster galaxies retain hot X-ray compact coronae that resist stripping and evaporation, form stars in stripped tails, and have AGN. Galaxies themselves can generate turbulence and amplify magnetic fields in the intracluster medium in the process of being stripped. Using numerical simulations, I will provide some physical insight into the dramatic death of galaxies in group and cluster environments.