

## Galaxy Evolution in the Virgo Cluster

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The environment plays a key role for the evolution of galaxies residing in galaxy clusters. A galaxy entering a cluster can have three kinds of (i) an interaction with the gravitational potential of the cluster, (ii) an interaction with another galaxy, (iii) ram pressure stripping due to the galaxy's rapid motion through the hot intracluster medium. Since Virgo is the nearest cluster in the northern hemisphere, it represents an ideal place to investigate these interactions in detail. We have studied 6 individual Virgo Cluster galaxies that experienced or experience interaction (ii), (iii) or a mixture of both. Detailed comparisons between simulated and observed gas distributions and velocity fields allow us to identify the kind of interaction that the galaxy underwent and to determine the interaction parameters. In this way we are beginning to establish a temporal sequence of ram pressure stripping. We are now at the point where we can start to think about the gas physics of these interactions (evaporation, phase mixing, change of phase, star formation). I will compare these individual cases to star formation morphologies of a large sample of Virgo galaxies. Finally, new results on the big elliptical galaxy M86 will be presented and its possible interaction with the Virgo cluster will be discussed.

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