

[초EG-03] Evolution of galaxies through galaxy-galaxy interactions

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I review the dependence of galaxy properties on environmental parameters such as the local density, nearest neighbor distance and morphology. We find that a galaxy with an early- or late-type nearest companion within its virial radius tends to be an early or late type, respectively. The morphology of galaxies located in high density regions tends to be the same as that of the ones in low density regions if their luminosity and the nearest neighbor environment are the same. This strongly supports that galaxy morphology and luminosity evolution have been driven mainly by galaxy-galaxy interactions, and the background density affected morphology and luminosity only through the frequency of interactions.