

Properties of moderate luminosity mergers

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Interaction and merging are the two most important driving forces of galaxy evolution. In recent years, much research activity has been focused on ULIRGs, which are the result of a disk-disk merger, since are among the most spectacular objects in the universe. However, ULIRGs are rare objects in the local universe. Thus, a study of a sample of merging galaxies of moderate FIR luminosity ($\sim 10^{10} - 10^{11} L_{\odot}$) may teach us as much as or even more about galaxy formation and evolution than investigations of the most extreme objects. Mergers having a moderate FIR luminosity can also be produced by merging two gas-rich galaxies with unequal mass or a spiral and an elliptical (S+E). Alternatively, they can be a result of a faded major merger. As a class, moderate luminosity mergers are poorly studied and their role in the overall process of galaxy evolution is not yet well understood. We have obtained multicolour optical and NIR imaging data, optical spectroscopy, H₂ and CO (i.e. molecular gas) data for a large part of a sample of moderate luminosity merger candidates. A cross section of the results will be presented, and some preliminary conclusions will be drawn. These include an assessment of the crucial question of the extent (and existence) of the starburst resulting from the merger - a dominating young stellar population and significant dust obscuration is indeed suggested for most of the sample galaxies.

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