
Minor mergers onto early-type galaxies: Dust lanes, HI and H2

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Abstract

In the LCDM paradigm, minor mergers are ubiquitous and occur in all types of galaxies—including early-type systems. In this talk, I will show that gas-rich minor mergers can provide massive galaxies with new cold gas reservoirs, and thus fuel for star formation. If the viewing geometry is right these gas reservoirs are often revealed thanks to prominent dust lanes visible in extinction in optical images or can be detected directly using ionised, atomic and molecular gas tracers. Mergers of this sort create misaligned components (which can be reasonably long-lived), and potentially fuel future AGN outbursts. Contrary to the expectation that gas-rich mergers produce starbursts, I will show that star formation can actually be suppressed in minor mergers onto gas-poor hosts.

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