

## Molecular Gas and Star Formation in Elliptical/S0 Galaxies

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Some early-type (elliptical and S0) galaxies are now known to host cold gas and star formation. To investigate the details of the relation between the cold molecular gas and star formation in these galaxies, I compare new interferometric maps of the molecular gas with optical integral-field unit (IFU) data. This comparison identifies three categories of early-type galaxies with molecular gas: 1) galaxies that are clearly star forming, evidenced by star-forming emission line ratios, 2) galaxies that have young populations of stars, evidenced by absorption linestrengths, and most surprisingly, 3) galaxies that have no signs of star formation or young stars, despite the presence of molecular gas. To see if star formation in early-types follows the same relations as observed in spiral galaxies, I compare classical star formation tracers, such as  $L_{\text{FIR}}$ ,  $L_{\text{H}\beta}$ , and radio continuum. The most strongly star forming galaxies appear to follow the classical relations, although the situation is less clear for the weakly star-forming galaxies and the relations clearly fail for galaxies with significant AGN.