

properties of the late-merging-stage, single-nucleus systems in the sample is now in the final stage of completion. In the third part of the programme, we are investigating the possible evolutionary connection between ULIRGs and local QSOs, and we are currently analysing the ISAAC *H*-band spectroscopy of our sample of 12 Palomar-Green QSOs spanning the same redshift and luminosity range as the ULIRG sample.

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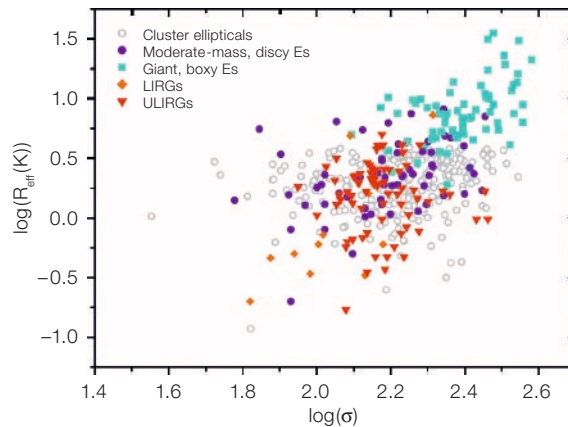


Figure 3: The dynamical projection (effective radius – velocity dispersion, $r_{\text{eff}}-\sigma$) of the fundamental plane for our sample of ULIRGs, compared with samples of elliptical galaxies and lower-luminosity infrared galaxies (LIRGs). See text for references.

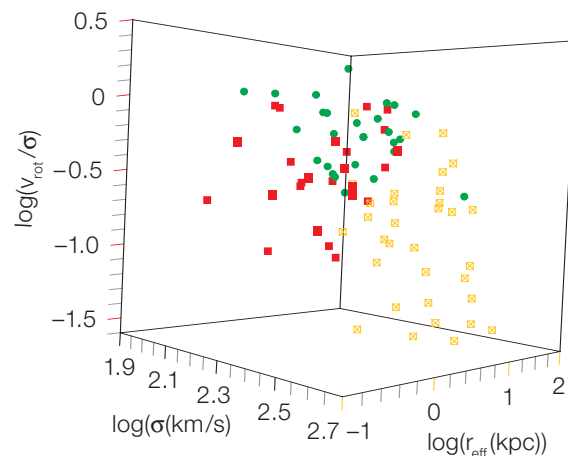


Figure 4: Here we show a three-dimensional plot ($\sigma-r_{\text{eff}}-v_{\text{rot}}/\sigma$), which indicates the distribution of the ratio of rotation-to-dispersion velocity for the fully coalesced ULIRGs and local elliptical galaxies. The ULIRGs are shown in red, intermediate-mass (discy) ellipticals in green and giant (boxy) ellipticals in gold. The elliptical galaxy properties are taken from Bender et al. (1992) and Faber et al. (1997).

Supernova in NGC 1559

Colour-composite image of the spiral galaxy NGC 1559 in the Reticulum constellation, obtained with FORS1 on the VLT. NGC 1559 is located about 50 million light years away and is about seven times smaller than our Milky Way. The supernova SN 2005df, discovered on the night of August 4, 2005, is visible as the bright star just above the galaxy. SN 2005df has been further classified as a somewhat unusual type Ia supernova, caught probably 10 days before it reached its maximum brightness. Dietrich Baade, Ferdinando Patat (ESO), Lifan Wang (Lawrence Berkeley National Laboratory, USA), and their colleagues studied its polarisation properties and found that SN 2005df resembles closely SN 2001el, whose explosion was significantly asymmetric.

See ESO Press Photo 26/05 for more details.

