Star Formation and Figure Rotation in the Early-Type Galaxy NGC2974

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We present *Galaxy Evolution Explorer* (*GALEX*) far and near ultraviolet imaging of the nearby early-type galaxy NGC 2974, along with complementary optical imaging. In the ultraviolet, the galaxy reveals a central spheroid-like component and a newly discovered complete outer ring of radius 6.2 kpc, with suggestions of another partial ring at an even larger radius. Blue FUV−NUV and UV−optical colours are observed in the centre of the galaxy and from the outer ring outward, suggesting young stellar populations (< 1 Gyr) and recent star formation. This is supported by a simple stellar population model which assumes two bursts of star formation, allowing us to constrain the age, mass fraction of the young component pixel by pixel. Overall, the mass fraction of the young component appears to be just under 1 per cent. The additional presence of a nuclear and an inner ring (radii 1.4 and 2.9 kpc, respectively), as traced by [O III] emission, suggests ring formation through resonances. All three rings are consistent with a single pattern speed of 78 ± 6 km s^{-1} kpc^{-1}, typical of S0 galaxies and only marginally slower than expected for a fast bar if traced by a small observed surface brightness plateau. This thus suggests that star formation and morphological evolution in NGC 2974 are primarily driven by a rotating asymmetry (probably a large-scale bar), despite the standard classification of NGC 2974 as an E4 elliptical.