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Abstract

Non-axisymmetric features such as bars drive the dynamical and secular evolution of disk galaxies by exerting gravitational torques which redistribute mass and angular momentum. While most (> 70 %) spirals are barred in the local Universe, early studies of the Hubble Deep Field (HDF) suggest a remarkably low bar fraction (< 20 %) at intermediate redshifts (z=0.5-0.8). If confirmed, this result would imply that disks at these epochs are fundamentally different from present-day spirals. We revisit the recoverability, fraction, and properties of bars at intermediate redshifts using the two largest HST surveys to date: Galaxy Evolution from Morphology and SEDS (GEMS) and the Great Observatories Origins Deep Survey (GOODS). We also present first results to analyze the stability of bars embedded in massive halos of various central concentrations and asymmetries.

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