

Abstract Submitted  
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**Extremely Isolated Early-Type Galaxies**<sup>1</sup> CHRISTOPHER FUSE, TCU, PAMELA MARCUM, TCU, NASA HQ, MICHAEL FANELLI, TCU — Isolated galaxies provide a unique means of assessing the evolution of galactic systems. Extremely isolated galaxies define the zero-interaction baseline for comparative studies of galaxy evolution. Here we present results for a sample of isolated early-type galaxies (IEGs) in the local universe. Candidate IEGs were identified using the optical imaging data from Release 1-5 of the Sloan Digital Sky Survey (SDSS). Objects are selected according to strict isolation criteria: IEGs must be separated by at least 2.5 Mpc from any neighboring non-dwarf companion galaxy ( $M_V > -16.5$  mag). These criteria insure that the IEGs have never interacted with another existing galaxy since formation. We have combined SDSS images in the u,g,r filters to improve the signal-to-noise ratio. The stacked images permit a more robust determination of the morphology and photometric structure of the candidate galaxies. The images are interpreted using annular surface photometry and a bulge/disk decomposition technique. Our sample defines a complete volume-limited population of extremely isolated early-type galaxies within a distance of 72Mpc.

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