

**R41b****E+A galaxies in the Sloan Digital Sky Survey**Tomotsugu Goto、 Robert C. Nichol、 Christopher J. Miller、 Percy L. Gomez(CMU)、  
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E+A galaxies are an interesting phase of galaxies. While they have strong Balmer absorption lines (meaning they have been star forming until at least recently), they do not have the strong emission lines such as [OII] and  $H\alpha$ , (meaning they do not have on going star formation). Dressler & Gunn (1983,1992) interpreted them as post-star burst galaxies in which the star formation ceased abruptly within the last  $\sim$  Gyr.

The origin and the formation process of E+A galaxies are still a hotly debated subject. In the distant cluster survey (Dressler et al. 1992), E+As are found selectively in cluster environment. On the other hand, in 1996, Zabludoff et al. showed that E+As can also live in field environment. Later, Smail et al. (1999) detected radio continuum from several E+As in distant cluster and suggested that in some E+As, moderate star formation is ongoing and in optical wavelength it is just hidden by dust. Poggianti et al. (1999,2000) and Bekki et al (2001). showed using SED model that such a dusty star burst galaxies really can show E+A spectra.

In this work, we have unique opportunity to study E+A phenomena using much larger sample from Sloan Digital Sky Survey. We match up E+A galaxies with 2MASS and FIRST data and reveal their environment, dust effect, morphology through optical, IR and radio data and discuss the origin of E+A galaxies.