

Post-Starburst Quasars

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Abstract. We describe a comprehensive multi-wavelength and multi-faceted program to understand a class of quasars we call post-starburst quasars, which may represent an evolutionary phase in mutual galaxy/black hole evolution.

Keywords. galaxies: starburst, quasars: general

Brotherton *et al.* (1999) discovered a quasar that also displayed the spectral signatures of a massive, luminous post-starburst population, the prototype post-starburst quasar. Follow-up by Canalizo *et al.* (2000) showed a companion object that also displays a post-starburst spectrum. *Hubble Space Telescope (HST)* imaging indicated that the object has had more recent star formation, and appears to be a merger remnant. We have selected a catalog of broad-lined AGNs with the Balmer jumps and Balmer absorption lines from the Sloan Digital Sky Survey (Brotherton *et al.* 2007) and explored their environments compared with the total quasar population (Cales *et al.* 2007). We have conducted follow-up observations of subsamples of our catalog. These follow-up observations include *HST* imaging (Cales *et al.* 2009), UV imaging with *GALEX* (Strom *et al.* 2009), spectroscopy with the Keck and Kitt Peak telescopes, and *Spitzer* spectroscopy.

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