

# RED GALAXIES AROUND A QUASAR AT $Z=1.1$ AND THEIR AGES

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We obtained near-infrared and new deep optical images of the field near the radio-loud quasar 1335.8+2834 at  $z=1.086$  where excess of galaxy surface number density was reported by Huthings et al. [AJ, 106, 1324]. We found a clustering of objects with very red optical-NIR color,  $4 < R-K < 6$  and  $3 < I-K < 5$  near the quasar. The colors and magnitude of the reddest objects are consistent with those predicted for luminous ( $> 0.5L_*$ ) and old (2-4 Gyr old) passively evolving elliptical galaxies at  $z=1.1$ .

The reddest and the brightest cluster member has  $K = 17.3$ ,  $R - K = 5.7$ , and  $I - K = 4.3$  and its colors are well fitted by the model spectrum of a 3-3.5 Gyr-old passively evolving elliptical galaxy observed at  $z=1.1$ , without reddening effects by dust extinction or other reasons. This constrains the age of the universe; if  $q_0 = 0.5$ ,  $H_0 < 60 \text{ km s}^{-1} \text{ Mpc}^{-1}$  is needed.

For more details, see Yamada et al. [*ApJ Letters*, (1997), 487, pp.125-129] and Tanaka et al. (1997, in preparation).

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