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**Author(s):**

Kovač, Katarina; Malhotra, Sangeeta; Rhoads, James E.

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## **Clustering of Lyman Alpha Galaxies at $z = 4.5$**

**Katarina Kovac**, Kapteyn Institute Groningen,  
**Sangeeta Malhotra**, Space Telescope Science Institute and  
**James E. Rhoads**, Space Telescope Science Institute

**Abstract** The Large Area Lyman Alpha (LALA) survey has been designed and executed to detect a number of Lyman alpha (Ly alpha) emitting galaxies at high redshift to be statistically useful. Studies of clustering properties of those objects offer a probe for galaxy formation models.

We present the clustering properties of 167 Ly alpha galaxies around  $z=4.5$  selected from the LALA survey. Our catalogue covers an area of  $36' \times 36'$  observed with five narrowband filters. We consider all galaxies as one sample. We assume that the angular correlation function is well represented by a power-law of slope  $\beta$  equal 0.8 and we find for the amplitude of the angular correlation function to be 14.75 (for distances in arcsec). We then calculate the correlation length of the two-point spatial correlation function through the Limber transform. We estimate this value is  $5.07/h$  Mpc in a Lambda-dominated universe. The strong clustering indicates that Ly alpha galaxies are associated with massive dark matter haloes.