

**U12c                    Scaling analysis of galaxy distribution in the LCRS data**

黒川 知美（お茶大）、森川 雅博（お茶大理）、毛利英明（気象研究所）

The Las Campanas Redshift Survey data are used to investigate structures of the galaxy number distribution. We construct two volume-limited samples with sizes of  $113 \times 113$  and  $126 \times 126 h^{-1}$  Mpc, and calculate the second- to ninth-order moments with the count-in-cell method. The galaxy distribution at  $\geq 30 h^{-1}$  Mpc is found to be statistically homogeneous. On the other hand, we find a multifractal scaling at  $< 30 h^{-1}$  Mpc. From the scaling exponent, we obtain the generalized dimension, which decreases from 2 toward 1 as the order is increased from 2 to 9. Galaxies are known to lie, around voids, in planar structures with filamentary dense regions. The present result indicates that these void-filament structures are predominant up to  $30 h^{-1}$  Mpc. Statistically, they appear to be the largest-scale significant structures in the Universe.