Fessenko: New data on the luminosities, linear dimensions and the B-V colour indices for ScI galaxies by Rubin, Ford and others enabled us to obtain values for the light absorption coefficient which exceeded 0.36.

THE AUTOCORRELATION ANALYSIS OF DEEP GALAXY SAMPLES

S. Phillipps
(read by G. Efstathiou)

The two point correlation function $w(\theta)$ has been evaluated for the galaxies measured by the COSMOS machine at the Royal Observatory, Edinburgh, in an area of about 2 square degrees on a 2 hour exposure J plate and a 2 hour exposure R plate (Phillipps, S., Fong, R., Ellis, R.S., Fall, S.M. and MacGillivray, H.T., 1977, *Mon. Not. R. astr. Soc.*, in press). In each case $w(\theta)$ is found to be in agreement with the form $w = A\theta^{-0.8}$ found previously by Peebles and coworkers. Since the samples are not magnitude limited the selection function, i.e. the distribution in distance, was determined by using models of the galaxy distribution to fit the observed angular diameter counts. However, when these selection functions are used to scale the amplitudes found for our samples, the amplitudes are found to be lower than those expected from Peebles' results by a factor of about 3. We consider that this is likely to be due to a lack of clusters in the small area of sky which we have studied: analysis of further areas should show whether this is the case.

DISCUSSION

Huchra: Have you tried to obtain an estimate of the limiting magnitude of your plates independent of your very complicated procedure?

Efstathiou: No.

Longair: What do you estimate the typical redshifts of the galaxies you are studying to be?

Efstathiou: Typically about 0.2 to 0.3.