velocity structure of the H I gas. The shock velocity corrected for the projection is $v_s \simeq 100$ km $s^{-1}$. We derive the shock parameters and discuss the implications on the SNR W51C.

## The Objective-Prism Search of Emission-Line Galaxies Towards Hydra Void

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In order to discover the candidates of emission-line galaxies towards Hydra Void, objective-prism observations using U.K. Schmidt Telescope were carried out. To search the emission feature of [OIII]4959A and H-beta for all objects on the plate, all observed prism plates were scanned with APM at the Royal Observatory and the copied direct R plates were scanned with PDS Microdensitometer operating in the Inter-University Center for National Science Research Facilities. By utilizing the "XIMTOOL" package, both spectral and direct images for same field were displayed simultaneously on up and down windows separately. In case of distinct emission features for a certain object, corresponding direct object on the other window was examined to see whether this object is galaxy. Through this procedure, we discovered total 34 candidates of emission-line galaxies for a single field.

Keywords - emission-line galaxy, void, observational cosmology

## PHOTOMETRY AND SPECTROSCOPY OF THE SPIRAL GALAXY NGC7678

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We have conducted VR photometry and long-slit spectroscopy of a late type SAB(rs)c galaxy NGC7678, using the 1.8m telescope at DAO. We have analyzed the basic photometric properties of NGC7678 using ellipse fitting to the observed isophotes. The peculiarity of the morphology of NGC7678 is the two dissimilar open arms emerging from the edges of small bar-like inner structure. There are strong emission lines such as [NII] $\lambda$ 6548, 6583, H $\alpha$, and [SNII] $\lambda$ 6716, 6731 both from the nucleus and the HII regions in the southern spiral arm. The spectra of the two regions are very similar but the nucleus shows higher [NII]/H $\alpha$ than the HII regions. The nucleus of NGC7678 is found to be intermediate between LINER and HII region nuclei. The star formation rate derived from the H $\alpha$ flux is 0.45 solar mass per year.