Comments on Extragalactic Objective-Prism Work

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I much regret not being able to attend this interesting meeting. However, I have two comments concerning useful Schmidt work on galaxies that I would like to pass on to you for further consideration.

Both relate to objective-prism surveys for emission-line galaxies. The first is a suggestion that the work of Wasilewski (1983) should be continued. (Additional studies of his objects have been made by Bothun et al. (1989), Osterbrock & Shaw (1988) and Osterbrock et al. (1992)). This utilized the Burrell Schmidt with a 4° prism that gave a dispersion of some 400 Å/mm in the neighborhood of N_1 , N_2 and $H\beta$. With this relatively high dispersion one can clearly separate these three lines, giving useful information on their relative strengths and widths that cannot be obtained from lower-dispersion material. It might be worthwhile to employ even somewhat higher dispersions than Wasilewski used, though this would no doubt affect the limiting magnitude somewhat. My second suggestion is that one should carry out objective-prism survey work in longer-wavelength spectral regions than are currently being used. The purpose is the detection of additional extragalactic objects in the z=3-5 range; this search should utilize the lowest available dispersion.

Photography can still contribute much useful information, though sufficiently large electronic detectors of high resolution are clearly the ultimate solution.

References

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