Alternatively, the feature may be due to OVIII Lα resonance absorption in material beamed towards us at relativistic speeds. The latter explanation is consistent with the directed-jet model for BL Lacs, first proposed by Blandford and Rees (Pittsburgh Conference, 1978), and with the work of Urry and Mushotzky (Ap.J. 253, 38, 1982) who infer the presence of a jet in this particular source.

20.03 Optical/UV Observations of the BL Lac Object, PG 1553+11, H. R. MILLER, Ga. St. Univ. and R. F. GREEN, KPNO. PG 1553+11 has been observed with IUE and emission features identified as Ly and NV have been detected at a redshift of z=0.36. Multichannel spectrophotometric observations obtained using the 5-meter Hale telescope have detected no discrete features in the optical portion of the spectrum. Archival plates have been searched in order to study the long-term variability and a range of 1.8 mag. has been detected for this object. Observations of this object, begun in 1980, have detected variations in excess of 1.0 mag. This work was supported in part by NASA and AFOSR grant No. 81-0161.

20.04 The Palomar Faint Quasar Survey, D. SCHNEIDER, CIT, M. SCHMIDT, CIT, and J. GUNN, Princeton - The Palomar Faint Quasar Survey, consisting of 114 fields covering 0.92 sq. degrees, is nearing completion. Field selection criteria were high galactic latitutde ($|b| > 30°$) and an absence of bright stars ($m < 14$). All survey observations were acquired in 1982 with a Texas Instruments 800 x 800 CCD coupled to a reimaging device (PFUEI) mounted at the prime focus of the Hale telescope. A 75 line/mm transmission grating yielded slitless spectra from 4600 to 7200 Å at 120 Å resolution. This configuration was chosen to optimize the search for quasars at redshifts 2.5 - 4.5. Spectra of 9500 objects from 16th to 22nd magnitude were extracted from the data, and each has been wavelength and flux calibrated. The task of obtaining slit spectra of promising candidates is currently being undertaken. At the midway point of the high resolution effort, no quasars with $z > 3.5$ have been found. This confirms Osmer's discovery of the steep decline in the space density of these objects. Among the candidates, narrow emission-line galaxies of $M_B \sim -19.5$ outnumber quasars by approximately four to one.

20.05 Narrowband [OIII] Imaging of the QSO 4C18.68: A Tidal Tail Revealed, M. M. SHARA, ST ScI, A. F. J. MOFFAT, U. de Montreal, R. ALBRECHT, ST ScI. Spectroscopy of quasar "fuzz" several arc seconds away from QSOs often reveals nebular emission lines. We have, therefore, imaged the z = .311 quasar 4C18.68 and its surroundings in the light of redshifted [OIII]. The QSO appears much more extended than in broadband images, and a faint tidal tail is discerned. The power of narrowband imaging for QSOs is emphasized.

20.06 The Cluster of Galaxies Associated with the Quasar 3C 206. H.K.C. YEE, DAO, R.F. GREEN, KPNO.

CCD spectra of 39 objects in a 3' x 3' field centered on the low redshift quasar 3C 206 (z = 0.200) were obtained using the KPNO 4-m spectrograph in a multi-aperture mode. The objects observed have Gunn r magnitudes between 17.0 and 21.7. We are able to determine redshifts for 15 galaxies. Of these, a total of 9 galaxies have redshifts consistent with being associated with the quasar. For the complete sample of galaxies in the field with $r < 20$ mag., only 4 are found to have velocities greatly different from that of the quasar. This is consistent with the expected background counts of ~ 2.5 galaxies in the field as determined by Green and Yee (1984, Ap.J. Suppl. in press). The 9 associated galaxies along with the quasar give a radial velocity dispersion of ~ 770 km s^{-1} for the cluster.

20.07 Polarized Compact Radio Sources, R. E. RUSK, E. R. SEAQUIST, J. L. YEN, Univ. of Toronto. We have conducted a VLBI study of optically thick, compact radio sources displaying high linear polarization, to determine whether the observed 4-10% polarization originates in optically thin milliarcsecond extensions of these objects. VLBI maps of six sources from this study (0400+258, 1354+195, 1538+149, 1743+173, 2113+293, 2209+236) are presented. We find that the highly polarized sources studied tend to be either very compact or to display asymmetrical milliarcsecond structure. The implications of this result regarding the nature of the polarization mechanism will be discussed.

20.08 Magnetic Viscosity in QSO Accretion Disks, P. J. SAKIMOTO, F. V. CORONITI, UCLA.

We calculate the effects of magnetic buoyancy on flux tubes imbedded in the inner region ($p_{rad} >> p_{gas}$; $\kappa_T >> \kappa_{ff}$) of an accretion disk surrounding a supermassive black hole. Flux tubes initially in temperature equilibrium with their surroundings become buoyant and escape from the disk when $B^2/8\pi \sim p_{gas} << p_{rad}$. Flux tubes intially in density equilibrium will also escape when $B^2/8\pi \sim p_{gas}$ provided that they are sufficiently optically thin to allow a finite heat flux into the tube. Including the effects of a vertical radiation pressure gradient in the disk interior and differential shear forces elongating the tubes enhances the buoyancy effect. If the anomalous stresses in accretion disks are purely magnetic in origin and they are limited by flux loss through buoyancy, then these calculations suggest that the total stress should scale as the gas pressure rather that the total (radiation) pressure in the inner regions of such disks.

20.09 CCD Imaging of BQS Quasars.

S. WYCKOFF, P. A. WEHINGER and M. KLEINE, Ariz. St. Univ. All QSO's in the Bright Quasar Survey (BQS, Green and Schmidt 1983 Ap.J., 269, 352) in the right ascension range 21^h to 2^h