1. The Survey

The WARPS (Wide-Angle ROSAT Pointed Survey) blazar survey is a deep X-ray search for BL Lac objects and flat-radio-spectrum quasars (FRSQs), drawn from a cross-correlation of serendipitous sources in the ROSAT PSPC database WGACAT (White et al. 1994) with the Green Bank 6 cm and 20 cm (Condon et al. 1989, Condon & Broderick 1985), the Parkes radio (Bolton et al. 1979), and the Parkes-MIT-NRAO (Griffith & Wright 1993, Wright et al. 1994, Griffith et al. 1994, 1995) catalogs. Our sample contains 165 new blazar candidates and 95 previously known blazars.

As single-dish surveys yield positions no better than those produced by ROSAT (error circles $10''-1'$), we used ongoing VLA surveys (FIRST, Becker et al. 1995; NVSS, Condon et al. 1996) to refine the positions to the arcsecond level for sources north of $-15^\circ$. For southern ($\delta < -15^\circ$) sources, which also lacked spectral index information, we have done a survey at 6 cm and 3.6 cm with the ATCA. We then obtained finder charts using the Digitized Sky Survey. Where there is no candidate at the best position, a deeper image is being obtained at a 1m class telescope.

Because of its depth and breadth (Figure 1), the WARPS blazar survey will yield the very first X-ray selected sample of FRSQs, allowing their X-ray luminosity function to be computed for the first time. This will produce constraints on the opening angle and $\gamma$ of the X-ray jet, parameters which are currently unconstrained. We will also address the current controversy...
Figure 1. The parameter space covered by the WARPS blazar survey. Diamonds are the WARPS blazars and candidates, crosses are Slew Survey BL Lacs, triangles are 1 Jy BL Lacs, asterisks are EMSS BL Lacs, and squares are S4 FRQS.

over BL Lac evolution (Perlman et al. 1996, Stickel et al. 1991). Finally, we will explore interrelationships between the two blazar subclasses.

References

White, N. E., Giommi, P., & Angelini, L., HEAD Meeting 1994