

- e. Particle acceleration models remain only partially developed. Why do they lead to all particles being relativistic? ~~What~~
~~How~~ How is the value of K related to the physics?
- f. At least one blazar (a southern source whose name escapes me) has a minimum brightness temperature (measured by scintillation) $\sim 2 \times 10^{14}$ K. This requires $\delta \gtrsim 200$ to avoid SSC catastrophe.
- g. When deprojected, the opening angles of some blazars $\lesssim 0.2$. It's not clear whether jet collimation theories can explain this.
- h. Accretion disk models do not explain the optical \rightarrow X-ray emission well in radio-quiet objects (Seyferts). The spectrum is reproduced well, but expected correlations of light curves at different frequency ranges are not observed.
- i. The high γ -ray luminosities of some quasars ~~are~~ ^{can be} explained by inverse Compton scattering of seed photons from some non-jet source. But there is a reverse time delay of γ -ray variations, which lag superluminal radio "ejections" (Jorstad et al. 2001, ApJ, 556, 738). The radio core is thought to lie outside the ^{broad} emission-line region, which was the prime candidate for making the seed photons.