

Jet launching

BHs

pros:

cons:

Disks

pros:

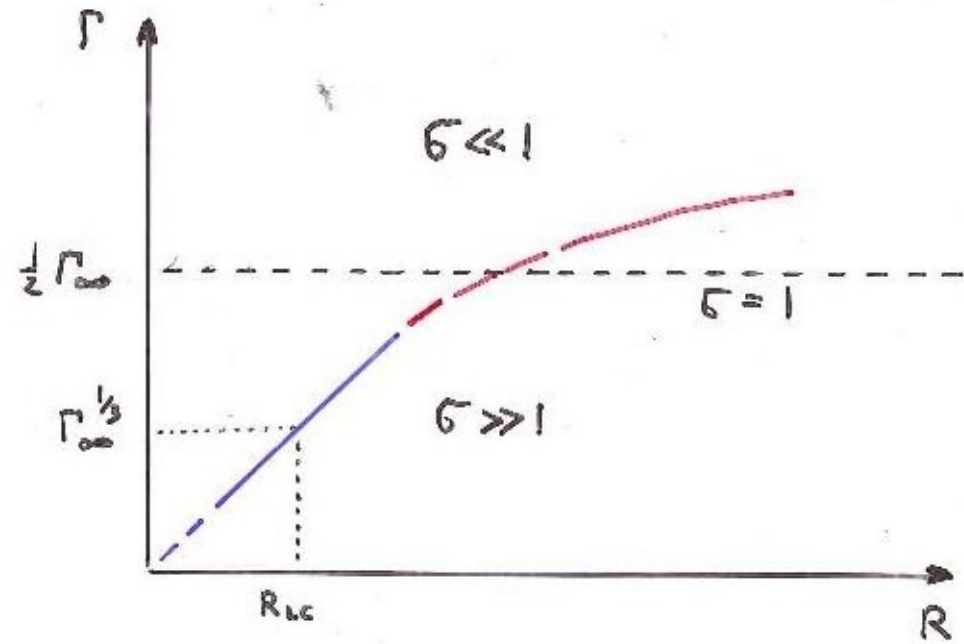
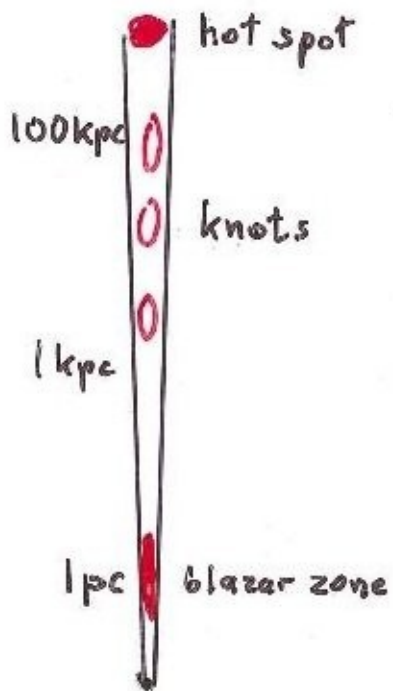
cons:

Jet propagation

Conversion to matter dominated

- at $r <$ blazar zone?
- on kiloparsec scales?
- never?

AGN JETS AT ALL SCALES



$$\sigma \equiv \frac{L_B}{L_K}$$

$$\Gamma_{\infty} = \frac{L_j}{\dot{M} c^2}$$

$$L_j = L_B + L_K$$

Low-energy spectral cutoffs in hot spots

Circular polarization and Faraday rotation
In radio cores



Proton-inertia dominated jets

Overproduction of soft X-rays in case of
pair dominated jets

Energy dissipation

Reconnection of magnetic fields

Internal shocks

Oblique and reconfinement shocks

Particle acceleration and radiative processes

hadrons vs. leptons

(acceleration and radiative efficiencies)

AGN triggers

mergers

secular processes