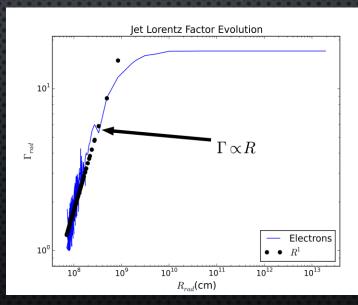
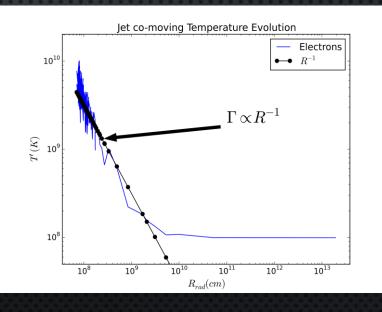
Relativistic Jets from GRBs and AGNs

Atul Chhotray, Oregon State University (Lazzati group)

- MONTE CARLO SIMULATIONS IN SCATTERING DOMINATED PHOTON-LEPTON PLASMAS
 - COMPTONIZATION AND PAIR PROCESSES
 - > TRACK PHOTON AND LEPTON ENERGIES
 - FOCUS ON TRANSIENT PHOTON SPECTRA AND LEPTON DISTRIBUTIONS
 - 10⁵ 10^{4} 10³ 10² 10 Initial Spectra = 3.405 $\tau_{\rm diss} = 0.049$ 10^{5} 10^{4} 10³ 10² 10¹ 10⁻² 10^{3} 10^{4} 10^{-1} Energy (keV)

- DYNAMIC MONTE CARLO SIMULATIONS OF EXPANDING GRB JETS
 - ➤ COMPTON SCATTERING INDUCED SELF CONSISTENT EVOLUTION, RADIAL EXPANSION AND ACCELERATION OF GRB JETS
 - TRACK FOUR MOMENTA AND POSITIONS OF ALL PARTICLES
 - > ACCELERATION, SPECTRUM AND LIGHT CURVES





• RADIATIVE ACCELERATION OF SPINE-SHEATH STRUCTURED JETS IN AGNS