Astrophysical Fluids, Lecture 6:

• Energy (cont).
  • Heating/cooling mechanisms
  • Transport processes

• Hydrostatic equilibrium
  • Basic concept
  • Isothermal slab; external gravity and self-gravity cases
  • Self-gravitating polytropes
T=4x10^7K “virialized” gas

Perseus cluster (X-ray image w/Chandra; Fabian et al. 2006)
NGC 7252 H II (S101)

$F_\lambda$ (10^{-16} erg s^{-1} cm^{-2} Å^{-1})

Observed Wavelength (Å)