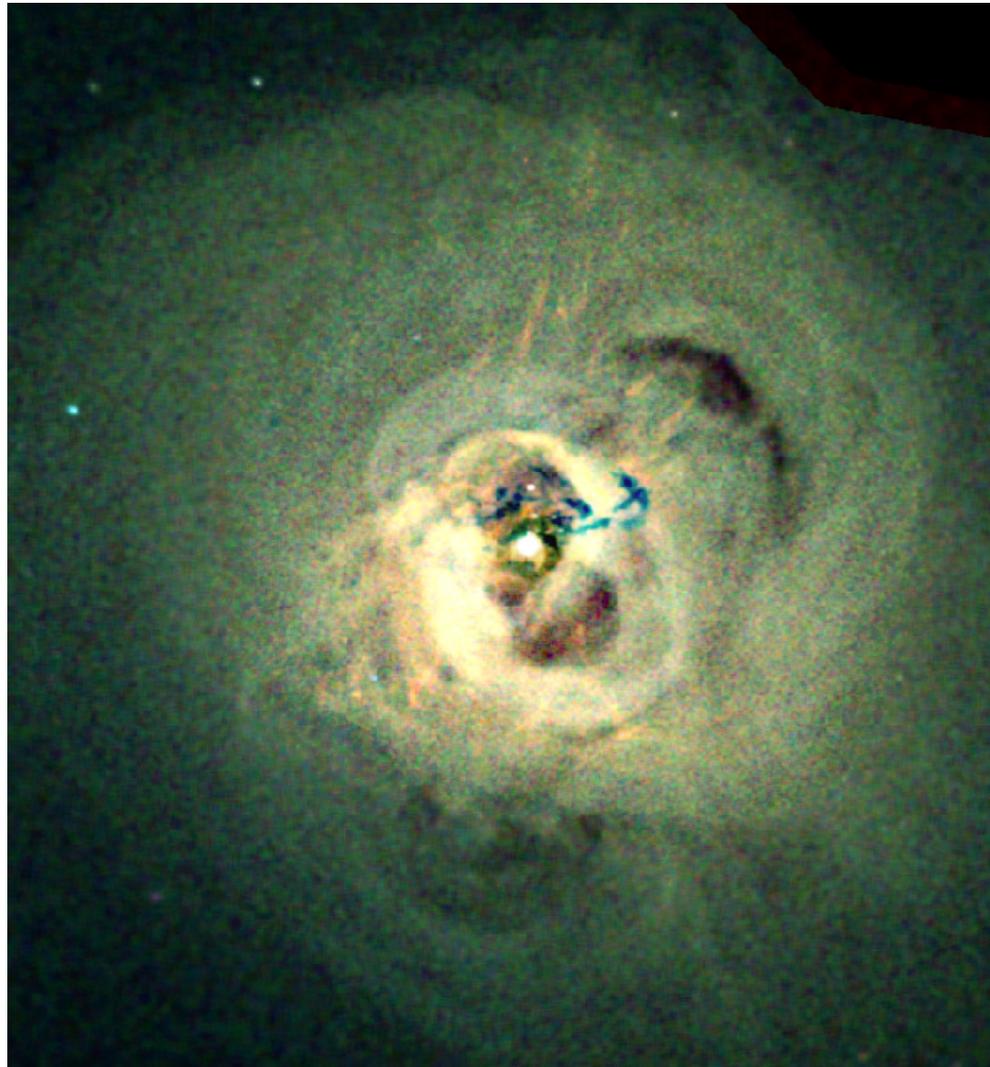


X-ray observation of Perseus Cluster Core

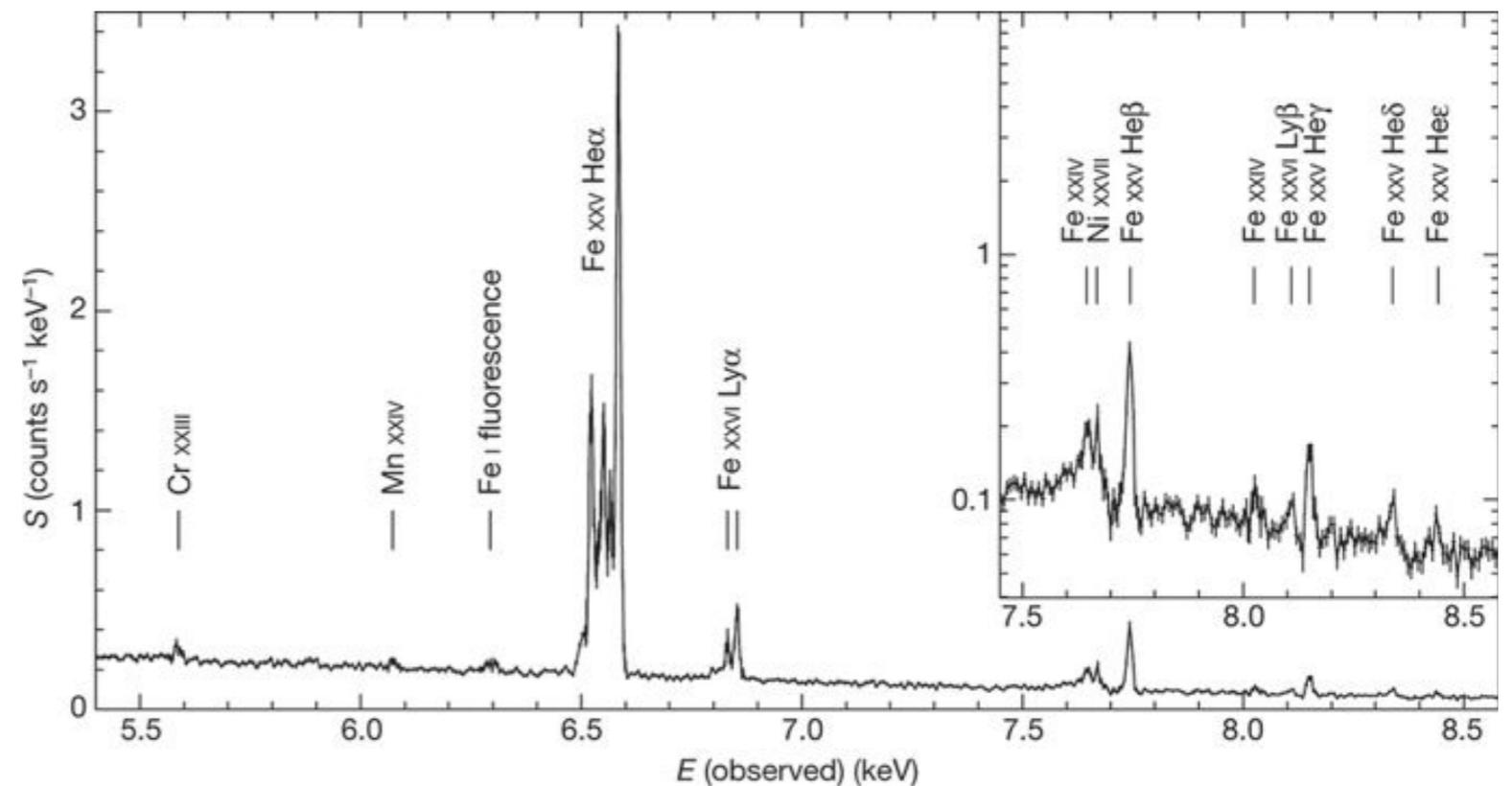
Priyanka Chakraborty, University of Kentucky

Questions:

What is cooling flow problem?
How to use CLOUDY to reproduce the spectra?

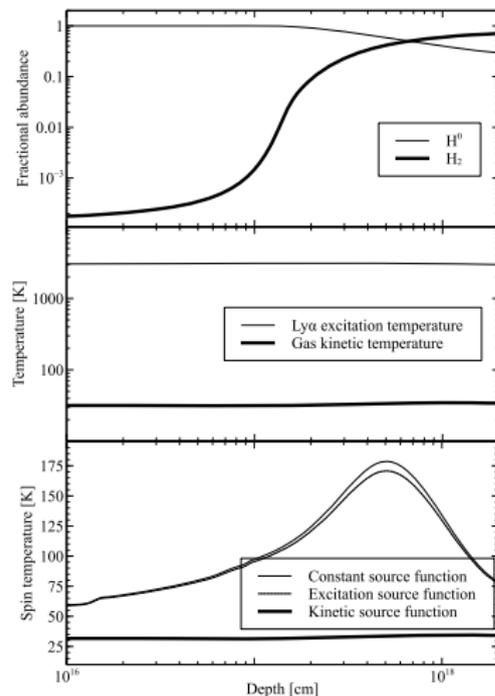


Chandra Image of Perseus core



X-ray spectrum of Perseus cluster core by Hitomi Observation

- ▶ Galaxy clusters
- ▶ Cloudy
- ▶ Atomic Physics:
 - ▶ Hyperfine Lines
 - ▶ Atomic models
- ▶ Shocks
- ▶ Exact Radiative Transfer



Fran Guzmán - University of Kentucky

- Cloudy
- Atomic Physics
- Plasma Physics
- H-like & He-like iso sequences:
 - Primordial Abundances
 - Radio Recombination Lines
- Dielectronic Recombination impact.
- Heavy ions → Kilonova

