Thermal equilibrium

- Heating by radiation field in photo case
- In coronal case external process sets temperature
- Cooling is anything that converts kinetic energy into light that escapes

Photoelectric heating

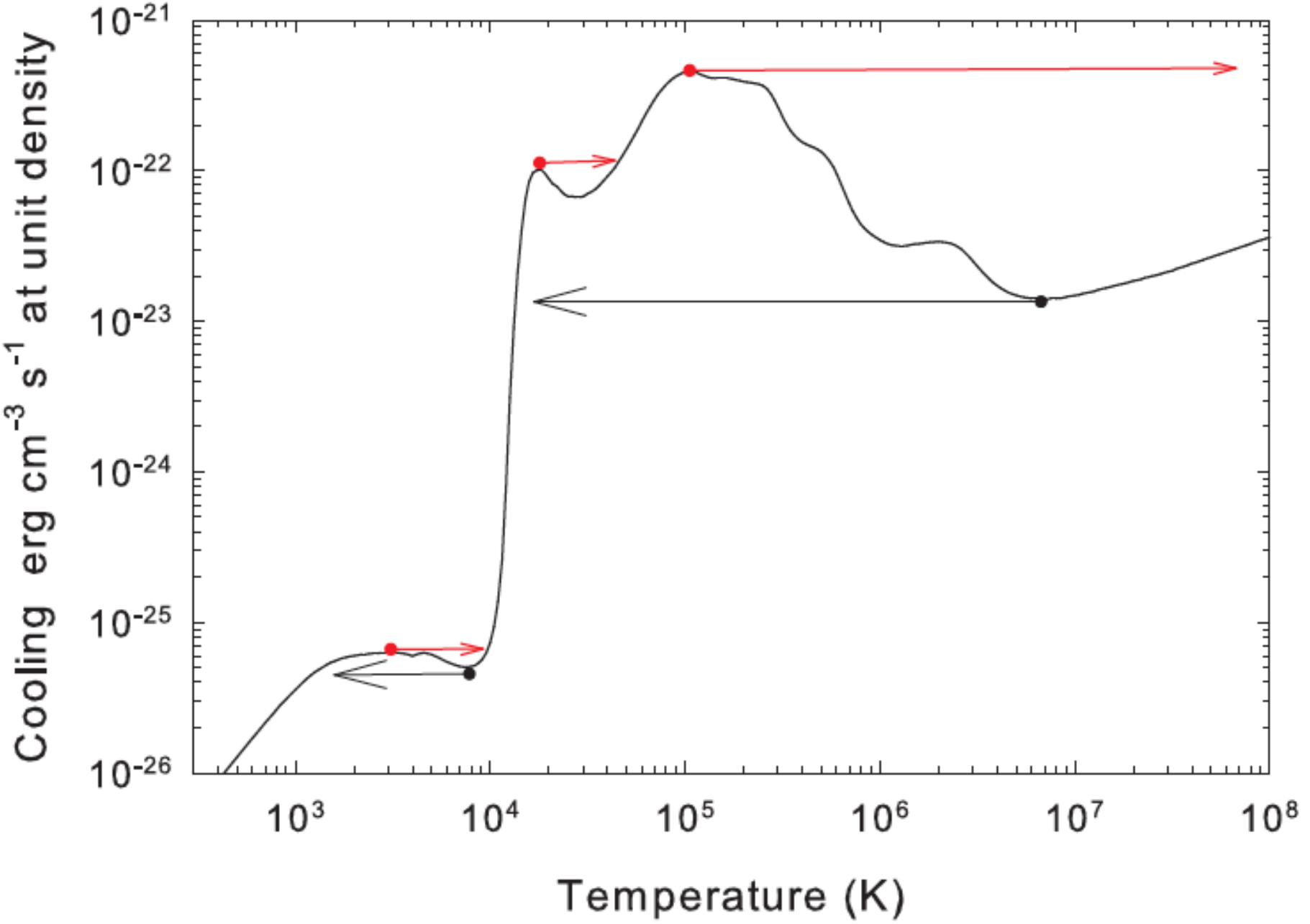
- **AGN3 eq 3.1**
- **SED**
  - Heating for different SEDs
- **Dependence on depth**
  - Spectrum, heating, across H+ region
- **Save heating**

Two types of lines

- **Recombination AGN3 sec 4.2**
  - q~1e-13 cm^3 s^{-1}
  - Mainly H, He
- **Collisionally excited AGN3 3.5**
  - q~1e-9 cm^3 s^{-1}
  - Heavy element

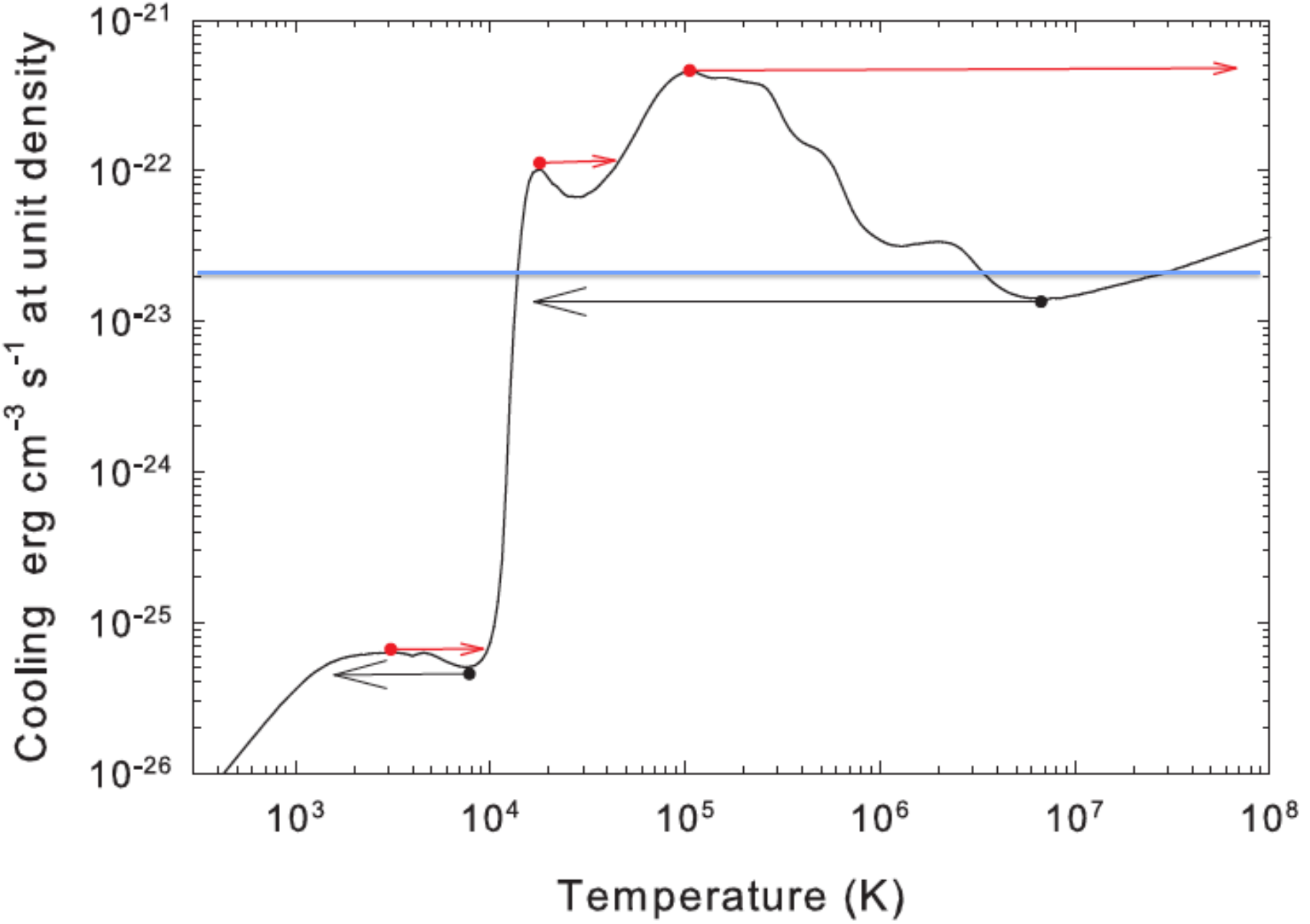
Other cooling processes

- Save cooling command
- Look at various output



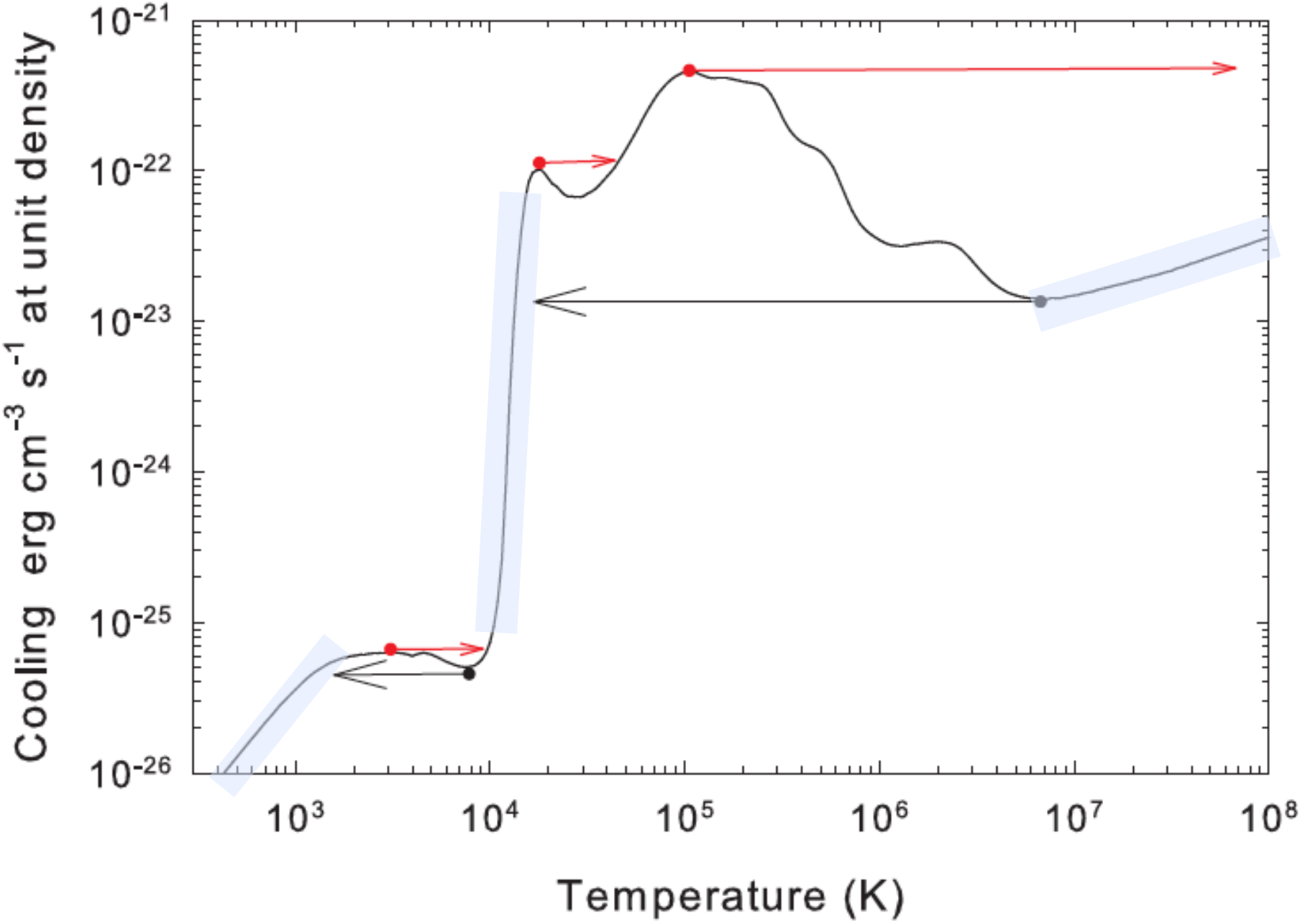
Dalgarno&McCray 1972 ARAA 10, 375

Ferland+09 MNRAS, 392, 1475



Dalgarno&McCray ARAA 10, 375

Ferland+09 MNRAS, 392, 1475



Dalgarno&McCray ARAA 10, 375

Ferland+09 MNRAS, 392, 1475