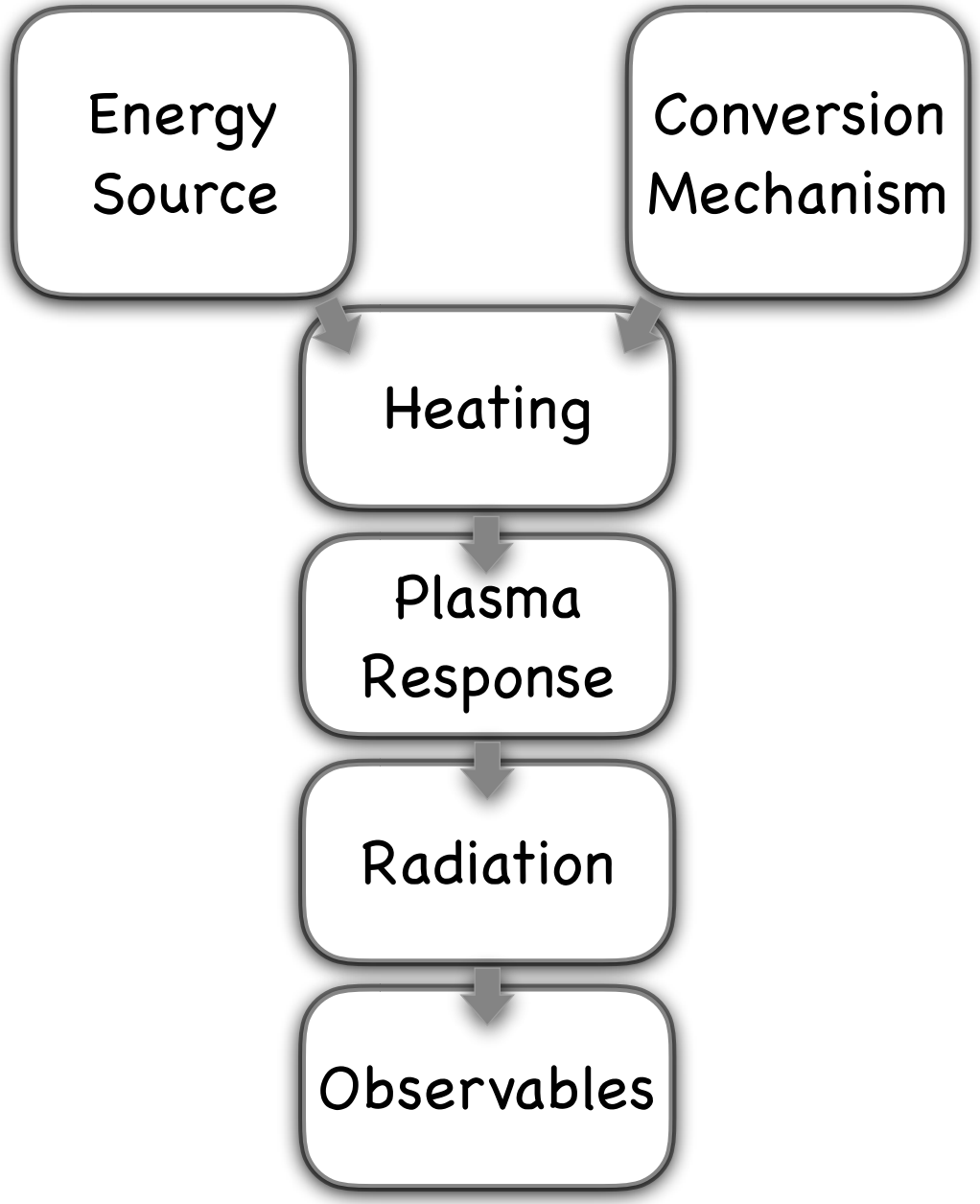
Heating mechanism of the Corona

- Active region corona needs a heating flux in the order of 10^3 W m^{-2} (Withbroe & Noyes 1977).
- Alfven wave (AC)
  - Energy dissipate in the cascade of alfven wave (van Ballegooijen A. A. 1986)
  - Energy stored in the low-frequency alfvenic waves in active region is in the order of 10^2 W m^{-2} (McIntosh et al. 2011)
- Nano-flare (DC)
  - Its contribution to coronal heating can only be extrapolated from the energy spectrum of big flares (Hudson H. S. 1991)
  - We propose a new method to measure the reconnection related heating in active region corona.

Coronal Heating Flowchart



Klimchuk 2006