

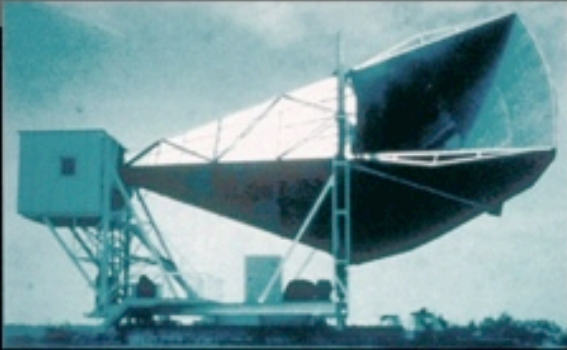
# Thermal History of the Universe

- Schneider
  - Section 4.4
  - Section 9.4 (Introduction and figure 9.30 - left only)

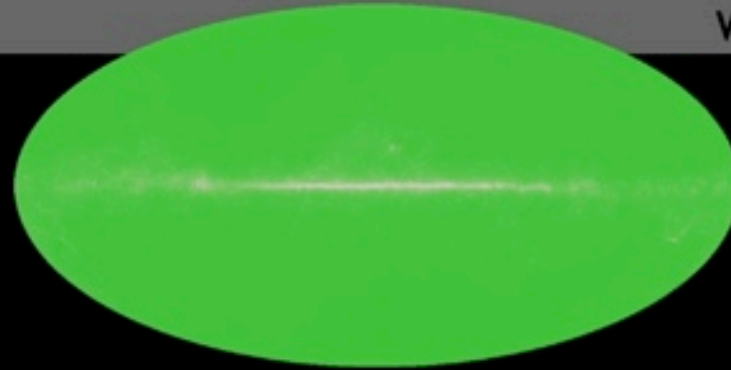
# 4. Homework

- 1) Derive eq. 4.55 following the instructions in the text in Section 4.4.1 in the book of Schneider
- 2) Derive eq. 4.64 following the instructions in the text in Section 4.4.5 in the book of Schneider
- 3) Explain in your own words why the abundance of deuterium decreases with increasing baryon density  $\Omega_m$

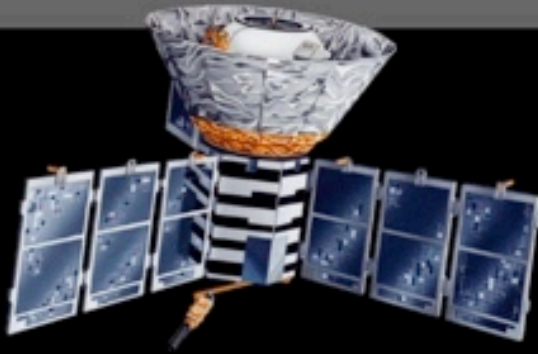
1965



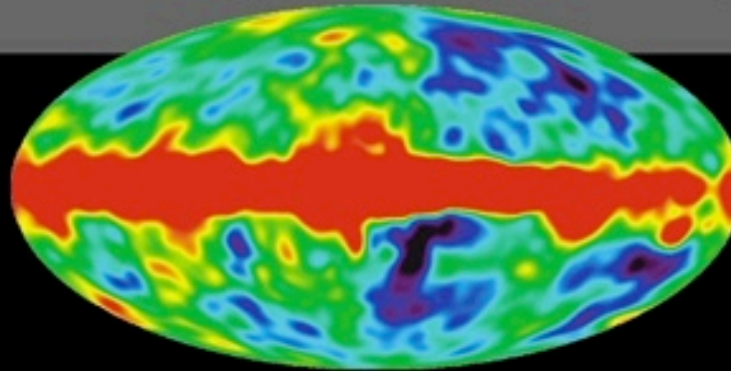
Penzias and  
Wilson



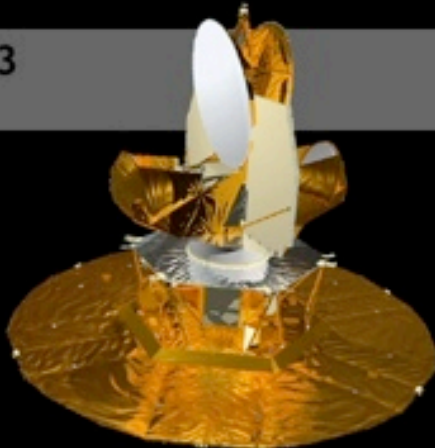
1992



COBE



2003



WMAP

