

ATM S 111, Global Warming: Understanding the Forecast



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Next topic: Climate Feedbacks



- Things that change when the climate gets warmer or colder
 - We'll discuss the following:
 - ✦ Water vapor feedback
 - ✦ Ice-albedo feedback
 - ✦ Cloud feedbacks
- Feedbacks are of critical importance in determining **temperature response** to climate forcings
 - **Positive** feedbacks are things that **amplify** warming

Climate Sensitivity



- Global warming theory:

$$\Delta T = \lambda \Delta F$$

Δ = common symbol indicating the change in a quantity

ΔT = change in temperature (in degrees C)

ΔF = radiative forcing (in W/m²)

λ = climate sensitivity