CAM4 & CAM5 Aquaplanet Experiments

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Climate sensitivity

\[ \lambda [K \text{ m}^2 \text{ W}^{-1}] \]

\[ \Delta \text{CRF/G} \]

\[ \lambda_{\text{clr}} [K \text{ m}^2 \text{ W}^{-1}] \]
Cloud response

CAM4

CAM5
Vertical velocity regimes

CAM4

Cloud radiative forcing [W m$^{-2}$]

CAM5

Cloud radiative forcing [W m$^{-2}$]

Aerosol Optical Depth

ω$_{500}$ [hPa d$^{-1}$]
CAM5: Convecting v. Subsiding

**Convection Regimes**

**Cloud Fraction**

**Cloud Liquid [mg/kg]**

**Cloud Ice [mg/kg]**

**Subsidence Regimes**

Pressure vs. Convection Regimes

- Black: Earth
- Dotted gray: Earth+2
- Blue: Aqua
- Dotted blue: Aqua+2