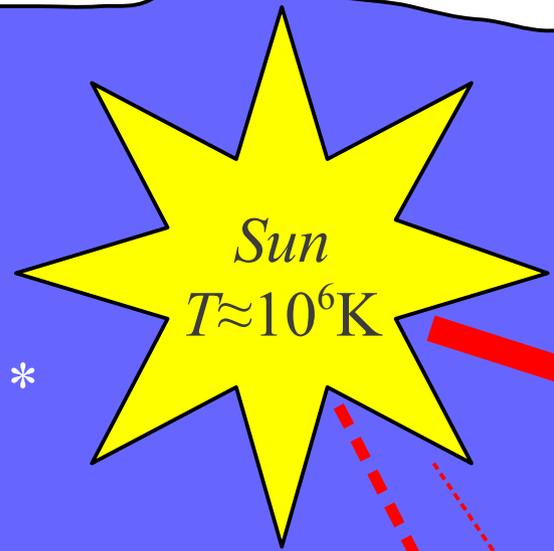
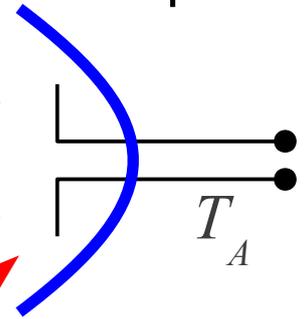


Cold sky
 $T \approx 10\text{K}$ $\Gamma = 0$



$$T_A = \frac{\iint T(\Theta, \Phi) |F(\Theta, \Phi)|^2 d\Omega}{\iint_{4\pi} |F(\Theta, \Phi)|^2 d\Omega}$$

Lossless antenna $\eta = 1$



Vegetation
 $T \approx 290\text{K}$
 $\Gamma \approx 0$

Ground soil
 $T \approx 290\text{K}$ $\Gamma \neq 0$

Lake $|\Gamma| \approx 1 \rightarrow \text{Mirror!}$

