

## Sun's Corona Temperature Problem

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See Unified Absolute Relativity Theory at:

[www.wbabin.net/saraiva/saraiva305.pdf](http://www.wbabin.net/saraiva/saraiva305.pdf)  
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Is not the corona that has a higher temperature than normal.

Is the surface that has a lower temperature than normal. The magnetic field at the surface absorbs a lot of energy.

The normal sun's 22 years cycle has a variation of the global temperature on earth of one degree.

Total energy of the sun:

$$E = 3.845 \times 10^{26} J ; \quad D_{ES} = 1.5 \times 10^{11} m$$

The temperature is an energy surface density as surface tension.

Temperature at earth:

$$T_E = \frac{E}{4\pi D_{ES}^2} = 1360K = 1087^\circ C$$

Measured value:

$$T_E = 1150^\circ C$$

Temperature at sun's surface:

$$T_S = \frac{E}{4\pi R_S^2} = 6.2 \times 10^7 K = 6.2 \times 10^7^\circ C ; \quad R_S = 7 \times 10^8 m$$

This is the maximum temperature at the corona.

Real temperature at the surface:

$$T_S = 5500^\circ C = 5778K$$

Sun's magnetic field:

$$B = 4 \times 10^{-4} T \quad \text{and} \quad \Delta T = 6.2 \times 10^7 K$$

$$\frac{\Delta E}{V} = \frac{B^2}{2\mu_0} = 6.4 \times 10^{-2} J/m^3$$

$$\Delta T = \frac{\Delta E}{A} \quad \Leftrightarrow$$

$$\Delta T = \frac{B^2 L}{2\mu_0}$$

$$L = R_S = 7 \times 10^8 m$$

$$\Delta T = 4.46 \times 10^7 K$$

Is the magnetic field that lowers the temperature at the surface.