Low cloud properties influenced by cosmic rays

The influence of solar variability on climate is currently uncertain. Recent observations have indicated a possible mechanism via the influence of solar modulated cosmic rays on global cloud cover. Surprisingly the influence of solar variability is strongest in low clouds (less than or equal to 3 km), which points to a microphysical mechanism involving aerosol formation that is enhanced by ionization due to cosmic rays. If confirmed it suggests that the average state of the heliosphere is important for climate on Earth.

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