

Topics (T)

Understanding and Predicting the Climate Change for our Planet (1)

Author: Dr. Bo Andersen
University of Oslo, Norway

SPACE AND THE UNDERSTANDING OF THE SUNS INFLUENCE ON CLIMATE CHANGE

Abstract

The energy input from the Sun is the driver of the Earths climate. This has, to a larger and smaller degree, been the case since the creation of the solar system. Variation of the Earths orbit and rotational inclination have been the main causes of ice ages the last millions of years. With the current global climate change it is a natural question to ask whether changes in the energy input from the Sun has any influence on the currently observed global warming. To understand this we need accurate and precise measurements of the Total Solar Irradiance (TSI) and this can only be achieved by sophisticated instruments in space. This talk will describe the status of the 45 years experience of space observation of TSI. On the basis of this we will try to conclude whether the Sun can be blamed for the observed global warming. Spoiler: The chances that we can blame the Sun are minute.