



KONWERSATORIUM INSTYTUTU FIZYKI UMCS

14.10.2010 r., godz. 11¹⁵, Aula IF im. St. Ziemeckiego

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„Recent Advances in Understanding Coronal Heating and Solar Wind Acceleration”

The nature of the solar corona - the million degree plasma surrounding the Sun - has puzzled scientists for decades. The related solar wind - the stream of charged particles from the sun - was predicted theoretically in late 50's, and later was detected by satellites. However, the exact mechanism that leads to coronal heating and the solar wind acceleration is not yet fully understood. The solar corona and the solar wind play an important role in solar activity, and influence the state of Space Weather. The plasma emanating from the Sun can adversely affect space based satellites, and astronauts not protected by the earth's atmosphere. In recent years several NASA, ESA, Japanese, and Russian satellites were launched to study solar activity, the solar wind, and the solar corona. The solar corona is observed with unprecedented resolution, and the spectrum of the Extreme Ultraviolet radiation is analyzed in detail. In parallel, theoretical and computational models of coronal heating and solar wind acceleration are developed based on data from satellite observations. The combination of detailed observations and modeling begins to provide answer to the questions of coronal heating and solar wind acceleration. This in turn leads to improved models of solar activity, and Space Weather predictions.

Uprzejmie zapraszam wszystkich pracowników, doktorantów i studentów Instytutu Fizyki.

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