VERY LOW FREQUENCY ASTROPHYSICS FROM THE MOON

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Abstract

We present the scientific case for a large array to be set up on the surface of the Moon to explore the last window of the electromagnetic spectrum never to have been observed with spatial resolution: the so-called VLF (Very Low Frequency) window, below about 30 MHz (10m) and down to a few 100 kHz (3km), a frequency range over which the Earth's ionosphere transmits either poorly, or not at all. Besides a strong astrophysical interest for the study of the interstellar medium, for galactic and extra-galactic objects, this window is also particularly well suited for solar and planetary studies, including the Earth's magnetosphere. We review the present status of different studies in this field and we discuss the present strategy to promote such a programme.

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