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Response of geomagnetic field related to atmospheric composition

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There is a growing amount of evidence of possible connections between the geomagnetic field and ozone production in the lower stratosphere. They emphasize the control the geomagnetic field can exercise on production and distribution of ozone, thus inflicting minor changes in climate patterns. In the present study we investigate such connection for other atmospheric gases, namely water vapor. The last gas is related to near-surface temperatures; here we investigate if the possible connections with the near-surface geomagnetic field. We have used the CHAOS field model producing internal magnetic field at different altitudes, covering the whole of Earth's surface. The important implications are discussed.

Primary author: PEQINI, Klaudio (Physics Department, Faculty of Natural Sciences, University of Tirana)

Co-author: Prof. KILIFARSKA, Natalya (Climate, Atmosphere and Water Research Institute, Bulgarian Academy of Sciences)

Presenter: PEQINI, Klaudio (Physics Department, Faculty of Natural Sciences, University of Tirana)

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