



## **Large-scale weekly cycles of meteorological variables: a review**

Arturo Sanchez-Lorenzo (1), Patrick Laux (2), Harrie-Jan Hendricks-Franssen (3), Josep Calbó (4), and Stefanie Vogl (2)

(1) ETH Zürich, Zürich, Switzerland (arturo.sanchez@env.ethz.ch), (2) Karlsruhe Institute of Technology (KIT), Institute for Meteorology and Climate Research, Garmisch-Partenkirchen, Germany, (3) Forschungszentrum Jülich GmbH, Agrosphere Institute (IBG-3), Jülich, Germany, (4) University of Girona, Dpt. of Physics, Girona, Spain

There is still an ongoing scientific debate whether weekly cycles of meteorological variables (temperature, precipitation, cloudiness, etc.) in large domains, which can hardly be related to urban effects, exist or not. In addition to the lack of the positive proof for the existence of these cycles, their possible physical explanations have been controversially discussed during the last years.

In this work we review the main results about this topic published during the recent two decades, including a summary of the existence or non-existence of significant weekly weather cycles across different regions of the world. Also a brief summary of the suggested reasons, especially focusing in the aerosol-cloud-radiation interaction, are presented.