# LONG-TERM VARIATIONS OF THE SOLAR ACTIVITY - LOWER ATMOSPHERE RELATIONSHIP

S.A. Zaitseva (1), S.N. Akhremtchik (1), M.I. Pudovkin (1), B.P. Besser (2),
R.P. Rijnbeek (3)

*(1) Institute of Physics, St. Petersburg University, St. Petersburg, Petrodvorets 198504, Russia*
*(2) Space Research Institute, Austrian Academy of Sciences, A-8010 Graz, Austria*
*(3) Space Science Center, University of Sussex, Brighton, BN1 9QH, United Kingdom*

Long-term variations of the air temperature in St.-Petersburg (Φ = 60N), Stockholm (Φ = 59 N), Salzburg (Φ = 48 N) and English Midlands (Φ = 50 N) are considered. It is shown that in the regions under consideration the air temperature distinctly depends on the intensity of the lower atmospheric zonal circulation (Blinova index and North Atlantic Oscillation index (NAO)). In turn, the NAO-index is shown to depend on the solar activity. However, this dependence is rather complicated and exhibits long-period variations associated with secular variations of the solar activity. A possible mechanism of this phenomena is discussed.
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