



## **Analysis of the ozone profile variability over Northern Hemisphere midlatitudes.**

M. Bialek

Institute of Geophysics, Polish Academy of Sciences, Warsaw, Poland, (mb@igf.edu.pl)

Measurements of the vertical ozone profile (7 layers from the ground up to 40 hPa) for six European stations (Hohenpeissenberg, Legionowo, Lindenberg, Prague, Payerne and Uccle) are examined. The aim of the analysis is to detect a possible change of trend in the ozone profile after January 1996. Correlations between ozone and several dynamic indices (NAO, EA, WP etc.) are calculated and a Fourier transform of the ozone data is also obtained. Results show a weak correlation of the daily ozone data with dynamical indices for all layers so only QBO index and solar radio flux as commonly used in ozone modeling are included into a statistical model explaining ozone variability. Seasonal changes are parameterized by a combination of sine and cosine functions. A trend term consists of two parts: the trend in the whole time series and change of trend after January 1996. Statistically significant change of trend is found mainly for winter and spring seasons.