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## UV variability in Moscow according to long-term UV measurements and reconstruction model

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**Abstract.** Long-term measurements of erythemally weighted UV irradiance ( $Q_{er}$ ) have been analyzed for the 1999–2006 period as well as UV variability according to a reconstruction model since 1968. The estimates of different atmospheric parameters effects, including  $NO_2$  content, on  $Q_{er}$  have been obtained on seasonal and interannual scales. It has been shown that  $NO_2$  content in conditions of large megalopolis provides average  $Q_{er}$  decrease of about 1.5–2%. The seasonal variations of the observed UV indices are discussed from the point of view of the impact on health. Using the reconstruction model we showed a distinct growth in  $Q_{er}$  since 1980 due to changes in total ozone (+2.5% per decade), effective cloud amount transmission (+2.1% per decade) and aerosol loading (+1.1% per decade). However, there is no change in  $Q_{er}$  over the longer 1968–2006 period due to significant decrease in effective cloud amount transmission (–11% per decade) in 1968–1980.

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