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Quality assessment of O_3 profiles measured by a state-of-the-art ground-based FTIR observing system

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Abstract. Ground-based Fourier Transform Infra-Red (FTIR) measurements are an important component of the global atmospheric monitoring system. Their essential role in validating satellite measurements requires a precise documentation of their quality. Here we present an extensive quality documentation of ground-based FTIR O_3 profiles. This is done in the form of theoretical and empirical error estimations. The latter is achieved by an intercomparison with ECC-sonde O_3 profiles. The FTIR O_3 amounts are obtained by applying the most advanced instrumentation and retrieval strategies and consequently represent the current potential of this remote sensing technique.

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