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Monitoring of atmospheric composition with IASI and MOPITT: CO distributions and trends

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Carbone monoxide (CO) is an important trace gas for understanding air quality and atmospheric composition. It is a good tracer of pollution plumes and atmospheric dynamics. In this talk we describe the analysis of global and regional CO distributions as seen by both the MOPITT/Terra and IASI/MetOp missions, from mid-2007 up to now.

Long term trends for IASI and MOPITT (version3, version4) CO total columns over specific areas are presented, and show excellent agreement. CO distributions over polluted and clean regions are compared. Preliminary results of a study comparing the surface CO level for the two sounders over different cities will be presented, using MOPITT version5 products that include the NIR and show a better sensitivity near the ground.

Finally, this talk will also illustrate how the data processed at ULB-LATMOS are currently assimilated in the MACC project to generate the CO pollution forecasts over Europe.