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Verification of Complete Data Fusion of ozone profiles in the framework of the AURORA project

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AURORA is a project financed by the European Commission in the framework of the Horizon 2020 Framework Program that concerns the application of fusion and assimilation algorithms to simulated VMR ozone profiles in different spectral bands, according to the specifications of atmospheric sentinels 4 and 5(p).

In the context of this project, several verification activities have been carried on to study the behavior of the Complete Data Fusion (CDF) algorithm. One of them consists in applying the CDF algorithm to sets of coincident pixels, simulated with different errors to study the behavior of the fused profile. A detailed analysis will be presented on the behavior of the fused profile, its averaging kernel and its variance covariance matrix, when the number of the input profiles increases.