



testing the regional application of site statistics with satellite data

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Remote sensing from ground sites is often associated with a time record length and/or accuracy to its data, which is superior to that of remote sensing from space. Thus, in those cases ground measurement (network-) data are applied to constrain retrieval assumptions and/or to extend satellite data in time. Alternately, this combination can be and has been used to explore the potential application of local site statistics to surrounding regions. As a demonstrator MISR sensor statistical maps of the retrieved aerosol optical depth are applied the test the regional representation of site statistics for aerosol optical depth detected at AERONET (sub-photometer) and EARLINET (lidar) sites. The regional representation tests explore local applicability for regions from 100 to 1000 km in diameter based on an analysis of averages for relative error and relative bias.