



Enhanced water vapour retrieval from MERIS measurements using ALBEDOMAP data

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We present an algorithm for the retrieval of integrated water vapour over land areas from data acquired by the Medium Resolution Imaging Spectrometer (MERIS). The proposed algorithm is based on inverse modelling of radiative transfer simulations by using an artificial neural network. The new algorithm includes additional information of the spectral surface albedo from the ALBEDOMAP dataset in order to increase the accuracy. We present the improvements by a comparison of the official ESA Level-2-water vapour product and the enhanced algorithm with GPS water vapour measurements. The comparison shows for the ESA water vapour product a bias of -7.5% compared to -2.5% for the enhanced algorithm.