

**Development of an Algorithm of Absolute Atmospheric Correction for Multitemporal Satellite Images. Application to the Region of Oran (West of Algeria).**

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This paper presents an algorithm for modelling of the different parameters which influence the reflectance at the satellite's level in order to estimate the real reflectance of the objects at the ground surface. However, the model described would compensate the atmospheric effects, the illumination and the observation conditions and characterise the objects by their unique and real values. Thus, the model developed makes directly two images comparable by the compute of the real reflectance value of the objects from image's digital number. In this study, the algorithm has been tested and validated by using two images of Landsat TM (1984,1993) of the Oran's region (West of Algeria).

The results on this paper show that, in the illuminated area as sea water, urban, vegetal covert, the difference between the two date's reflectance is nearly null. This, shows that these areas have been totally corrected by the algorithm. Except in the mountain's areas where the problem of shadow still exists and it has not been resolved. On the other hand, in the areas where the changes occurred (New road of Misserghine and the trail effected into the forest of M'sila), the reflectance is highly different between the two dates.

Keywords: Atmospheric Correction Model, Reflectance, Illumination, LANDSAT.