

[Publications](#)[Archive](#)[Volumes](#)[Full Text Search](#)[Title and Author Search](#)[Annals](#)[ISPRS Journal](#)[ISPRS Journal Geo-Info](#)[ISPRS eBulletin](#)[ISPRS Highlights](#)[Book Series](#)[Brochure](#)[ISPRS Profile](#)[Annual Reports](#)[Related Publications](#)[Booklets](#)

[Volume XXXVIII-5/W12](#)

Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XXXVIII-5/W12, 19-24, 2011

www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XXXVIII-5-W12/19/2011/

doi: 10.5194/isprsarchives-XXXVIII-5-W12-19-2011

© Author(s) 2011. This work is distributed under the Creative Commons Attribution 3.0 License.

FEATURES AND GROUND AUTOMATIC EXTRACTION FROM AIRBORNE LIDAR DATA

D. Costantino and M. G. Angelini

DIASS – Faculty Engineering of Taranto, Technical University of Bari – 74123 Taranto, Italy

Keywords: LiDAR data, segmentation, building detection, DTM, skewness, kurtosis

Abstract. The aim of the research has been the developing and implementing an algorithm for automated extraction of features from LIDAR scenes with varying terrain and coverage types. This applies the moment of third order (Skewness) and fourth order (Kurtosis). While the first has been applied in order to produce an initial filtering and data classification, the second, through the introduction of the weights of the measures, provided the desired results, which is a finer classification and less noisy. The process has been carried out in Matlab but to reduce processing time, given the large data density, the analysis has been limited at a mobile window. It was, therefore, arranged to produce subscenes in order to covers the entire area. The performance of the algorithm, confirm its robustness and goodness of results.

Employment of effective processing strategies to improve the automation is a key to the implementation of this algorithm. The results of this work will serve the increased demand of automation for 3D information extraction using remotely sensed large datasets. After obtaining the geometric features from LiDAR data, we want to complete the research creating an algorithm to vector features and extraction of the DTM.

[Conference Paper](#) (PDF, 1094 KB)

Citation: Costantino, D. and Angelini, M. G.: FEATURES AND GROUND AUTOMATIC EXTRACTION FROM AIRBORNE LIDAR DATA, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XXXVIII-5/W12, 19-24, doi:10.5194/isprsarchives-XXXVIII-5-W12-19-2011, 2011.

[Bibtex](#) [EndNote](#) [Reference Manager](#) [XML](#)

