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## AUTOMATIC GEO-REFERENCING MOBILE LASER SCANNING DATA TO UAV IMAGES

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**Keywords:** Mobile Laser Scanning; UAV images; Geo-reference; Pairwise Registration; Adjustment; Trajectory

**Abstract.** In this paper, a framework for adjusting mobile laser scanning point cloud data to improve the accuracy is proposed by integrating high resolution UAV images and MLS. First, aerial triangulated images with a few high accuracy ground control points are taken as control information. Then, a hierarchical strategy is proposed for robust pairwise registration of feature points between point cloud and images, so as to find the deviation of the point cloud. In the next step, a shape-preserving piecewise cubic interpolating method is employed to fit the time dependent error model of the trajectory. Finally, experiments are given to prove the effectiveness of proposed framework.

[Conference paper](#) (PDF, 1327 KB)

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