

## **BUILDING EXTRACTION BY MERGING LIDAR DATA AND AERIAL IMAGERY**

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### **ABSTRACT:**

This paper presents the method for extracting of building boundary using airborne LiDAR data and aerial imagery. This fusion sensor technology produces detailed and various characteristics of building models. The method applies plane fitting onto a LiDAR patch to extract the interest region. The initial plane area is selected from a LiDAR intensity image, and the best plane for building area is extracted from a point cloud data of LiDAR patch. The area matching to the best plane is clipped out from an aerial imagery. Then building area is classified by the mean shift segmentation. The Result is to fuse these data sources to obtain more accurate building models.