fully considered the aggregation of leaves, as well as the morphological characteristics of both leaves and branches. By conducting the model fitting and reconstruction of tree leaves and branches using Delaunay triangulation and Alpha-shape algorithm, respectively, the proposed method effectively addressed previous issues such as unrealistic tree structures and imprecise organ modeling, thus achieving the 3D reconstruction of individual tree leaves and small branches efficiently. This study holds great significance for determining forest structural parameters and managing resources, while also offering a valuable reference for component-level real scene 3D modeling of typical trees.

Keywords：terrestrial laser scanning；point cloud；branch and leaf separation；3D real scene；tree 3D reconstruction

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下期要目