近接リモートセンシングによる森林樹冠の３次元構造計測
Forest Canopy Structure Measurement Using close-distance Remote Sensing Technology

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In research on biodiversity, which has drawn attention in recent years, it is said that the diversity of tree species that constitute forests and the three-dimensional structure of forests are closely related to the diversity of the inhabitants. It is thought that grasping the three-dimensional structure of the forest canopy in the target area is important for development of a method to evaluate forest biodiversity by remote sensing technology. On the other hand, the three-dimensional structure of the forest canopy is important as a source of the influence of BRDF on the satellite received signal for the observation of vegetation by satellite remote sensing, and the importance of three-dimensional structure measurement for that has been recognized. So far, authors have used LIDAR and SfM technology to measure the canopy structure in various forests to estimate BRDF in the forest. We believe that the measurement method can be applied to biodiversity evaluation research in many cases.
In this research, we describe what can be clarified for the forest canopy structure measurement at present using the Terrestrial LIDAR, the close-measurement aerial LIDAR and by SfM technology, and the results of organizing the problems to be solved in the future.

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