A Big Earth Data Platform for Three Poles

**WATER: Dataset of 3D scanning of forest structure using the ground-based LiDAR at the super site around the Dayekou Guantan forest station**

1、Description

This data set is the acquisition of the super-site forest 3D structure of the scanning point cloud data and other ancillary data based on the ground-based lidar (LiDAR) . Data acquisition time is from June 4, 2008 to June 12, 2008. Riegl LMS-Z360i ground-based LiDAR was used. The super site is divided into 16 sub-samples of 25m×25m, LiDAR base station points are set in each sub-sample, and LiDAR acquisition 3D full coverage LiDAR point metadata is set at each base station point.  
The content of the data set: total station measurement coordinates (x, y, z) for each LiDAR data acquisition base station point, the instrument attitude measured by a digital slope meter and an angle meter when each station collects data, and the laser radar scanning point cloud data at each station. This data set can provide realistic 3D forest scenes, provide detailed ground observation data for the development and correction of various 3D forest remote sensing models, and provide ground verification data for airborne and spaceborne remote sensing data.

2、Keywords

Theme：Ground-based lidar,Remote Sensing Technology  
Discipline：Remote Sensing Technology  
Places：Heihe River Basin, Dayekou watershed foci experimental areas, Forest and Hydrology Experimental Areas, Super Site around the Dayekou Guantan Forest Station  
Time：

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：24426.9MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.534361 | - |
| west：100.250212 | - | east：100.251297 |
| - | south：38.533171 | - |

5、Time frame:2008-06-18 14:00:00+00:00--2008-06-27 02:00:00+00:00

6、Reference method

References to data:

ZHANG Zhiyu. WATER: Dataset of 3D scanning of forest structure using the ground-based LiDAR at the super site around the Dayekou Guantan forest station. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0044.db2012

References to articles:

刘清旺. 机载激光雷达森林参数估测方法研究. 北京: 中国林业科学研究院, 2009.

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project  
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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