

Analysis of SGLI validation datas based on the effects of the growth and ground types for the AGB development

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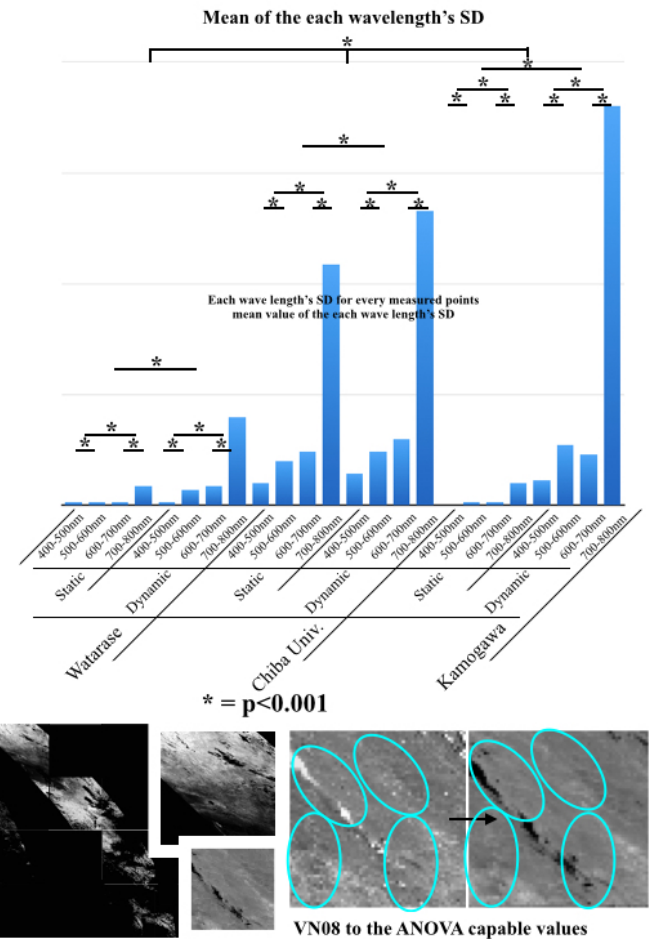
The effects of the earth of the time variant system should be difficult to detect the influence of the growth types and also the effects of the growth field's variations. The research may occur the SGLI's RSRF datas of the calculated AGB data accuracy analysis that observed between every kinds of the growth and also the ground types. The significance area of the SGLI observed, each of detected datas accuracy have to be considered. We show observation ways for the ground truth of the reflectance, LAI and fAPAR. The first case we use is a case of vegetation at the grassland. And then, based of reflectance values, we compare the other type as the Mixed coniferous forest example. The influence of an effect of the type of growth may occur the reflectance of the distributed area. We will detect these effects of the growth type. The influence at the observed area be necessarily to be verified.

The research topic includes the ground truth observation for the accuracy verification of a SGLI data obtained. For development of ground truth, the way to obtain datas were important. This paper explains how to examine growth (such as a second growth forest and other) and the slope factor of the second growth forest area and also the reflectance of each forest types. Then, this paper make ground truth observation scheme for the high accuracy AGB referenced data development at ground cover area. We explain the method of examine the error detection way including observation devices and also the problem of the research topic to be examined. Results may occur an example case of such kinds of the sloped forest and the kinds of the plane. The results shows a typical difference between the sloped and the plane, and then the results may occur the possibility that comparison of standard deviation may be an effective way to detect the volume of the forest type between every ground truth.

The case of we use as the sloped fields, reflectance of each wavelength were low and then the near 400 to 700 nm area will be higher than other wavelength (ANOVA values of results: $p < 0.001$). And then, we can see the effects of slope should be detected at total values of the reflectance. The reflectance of a wavelength were obtained that aimed to detect the verification of the slope and the growth type's reflectance. When the mixed coniferous forest, static observation develop same reflectance values but the effect of the sloped factor occur the high value of the standard deviations. Then, our method applied to the method of the SGLI's data calculation scheme, and then the growth factor of the area be affects the influence of the from 400 to 700 nm wavelength and also the factor of slope region be affects the wavelength of reflectance. SGLI data analysis, the factor of these parameters were used to remake the size of RSRF data from 250 m to 1000 m resolution. The future, we investigate more and then, the mask area of high value difference around the nearest 16 pixels be considered. Datas were significant at some pixels, such as a steep sloped, growth types, or error detected area. Data development of RSRF, the reflectance of each cells are detected as the values of the every ground types by the standard deviation.

Keywords: SGLI's data verifications, Reflectance maps, Statistical ANOVA analysis

Factor analysis of variable results (Three-way ANOVA)



Sloped factors: Mean values of the SD of each (dynamic/semi-static)
Canopy factors: Difference of each SD of the every SD
Growth typed factors: Difference of each Mean and SD

