**Suggested topics:** Remote Sensing Applications - Forestry

**Paper title:** Forest carbon stock estimation using ALOS/PRISM in case of Myanmar

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**Proposed presenter:** Yukio Wada

**Abstract:**

Forest carbon stock estimation is very important for the REDD+. Forest carbon stock estimation by overstory height method has been studies using ALOS/PRISM imagery.

Field survey of 28 plots was conducted in Shan state, Myanmar. The coefficient of determination between biomass and overstory height was 0.73. The forest carbon stock estimation model by overstory height was derived from this result.

Tree height can be measured by stereo pair satellite imagery by aerial reconnaissance technology. Tree height measurement was conducted at each field survey plots using ALOS/PRISM imagery. Accuracy of tree height measurement by ALOS/PRISM was RMSE 1.61. The coefficient of determination between tree height measurement by ALOS/PRISM and tree height by field result as truth was 0.96.

2km interval grid was set in the study area of Shan state. Tree height of each grid was measured by ALOS/PRISM imagery using ortho-photographic software ‘AZUKA’. And then, forest carbon stock of each grid estimated by applying tree height to the forest carbon stock estimation model.

It could be verified that overstory height method is effective for forest carbon stock estimation.

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**Preference:** Poster presentation