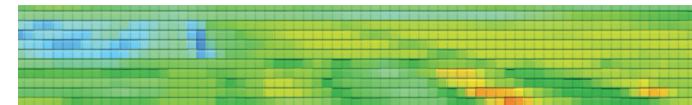


農学における情報利用研究フォーラムグループセミナー



# Leaf trait estimation from reflectance spectra: consideration of leaf structure asymmetry and measurement angles

## 2025年1月22(水) 13:00~

### 於: ZOOM

DATE: 22th Jan. 2025 at 13:00-

VENUE: ZOOM

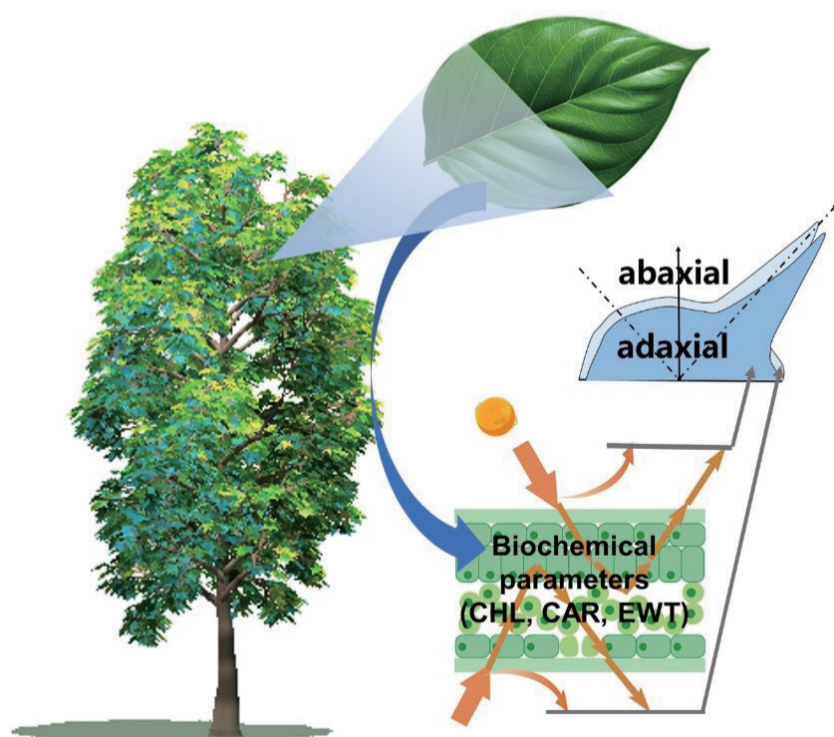
**speaker**

# Shan Lu PhD (Agriculture)

primary language:  
Japanese

Northeast Normal University, China, Professor

農学における情報利用ゼミナールを履修していない学生も参加できます



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LCC: Leaf chlorophyll content  
CAR: Leaf carotenoid content  
EWT: Equivalent water thickness

**Leaf** reflectance can reflect changes in biochemical parameters (e.g., LCC, CAR, EWT, etc.) of leaves, and therefore, vegetation indices extracted from leaf reflectance, as well as optical modeling of leaf reflectance, can be used for estimation of plant growth and health status. However, the effects of leaf dorsiventral asymmetry and measurement angle on leaf reflectance properties, and on the estimation of leaf biochemical parameters, have been less frequently considered. This presentation will introduce the effects of leaf dorsiventral asymmetry and observation angle on leaf reflectance. It will also discuss the construction of vegetation indices that are insensitive to leaf structure and observation angle, and the improvements to leaf optical models by considering the leaf dorsiventral asymmetry and observation angle.

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