China Shandong JECAM updates
Data fusion based on 100m and 300m Proba-V Reflectance

- ESTARFM are used to fill in the gaps of daily 100m Proba-V data
- The accuracy assessment shows that both reflectance and the vegetation indices derived from the blended data is close to the 1:1 line
Winter wheat biomass estimation based on LUE model

- The estimated biomass from the blended 100-m data were generally in good agreement with the observed biomass ($R^2 = 0.864$, RMSE = 191 g/m$^2$ and RRMSE = 16.7%); most of the scatter points are distributed along the fitting line, and the slopes is 0.916.

$$\text{AGB} = R \times \text{LUE} \times \sum_{t=0}^{N} (\text{APAR}(\Delta t) \times \Delta t)$$

$$\text{APAR} = \sum_{t=0}^{N} (\text{PAR} \times \text{FPAR}) \times \Delta t$$

$$\text{LUE}(x, t) = \varepsilon^* \times T_{e1}(x, t) \times T_{e2}(x, t) \times W_{e}(x, t)$$

$$W_{e}(x, t) = \frac{(1 + \text{LSWI})}{(1 + \text{LSWI}_{\text{max}})}$$
Thanks!

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