

Environmental Science Graduate Program Student Seminar Series

Influence of Varying Solar Zenith Angles on Phenology Extracted from Vegetation Indices - A case study in Harvard Forest

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Abstract:

Traditional phenology research is based on field measurements, which can provide detailed information about individual plants but is limited to a small scale. Since mid-1980s, satellite data have been used to monitor phenology on a large scale. Satellite vegetation index (VI) data, such as the NDVI and



EVI, plays an important role in phenology research. However, the surface bidirectional effects have an influence on the accuracy of the data, and the influence of angle effect has not yet been eliminated from the MODIS products though they have been broadly used in phenology analysis. My research is to assess the magnitude of solar zenith angle effects on the most commonly used vegetation index, NDVI and EVI, and the further effects on phenology extraction.



