

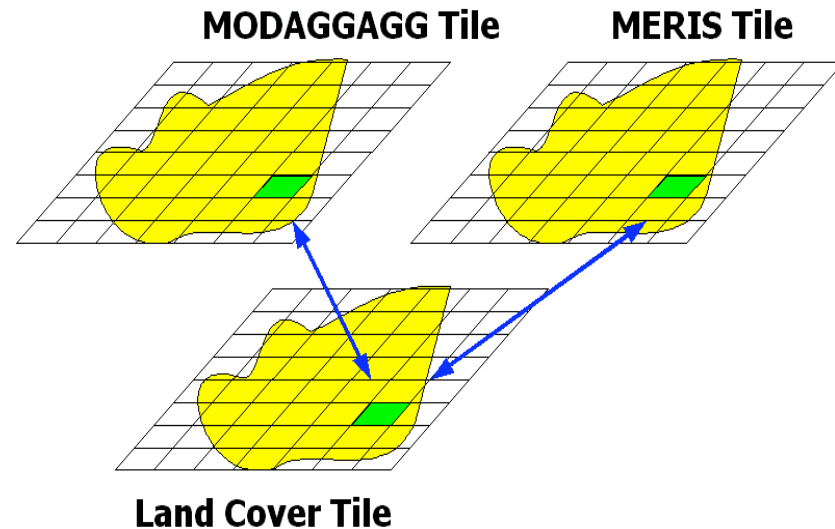
Comparing MERIS with MODIS data

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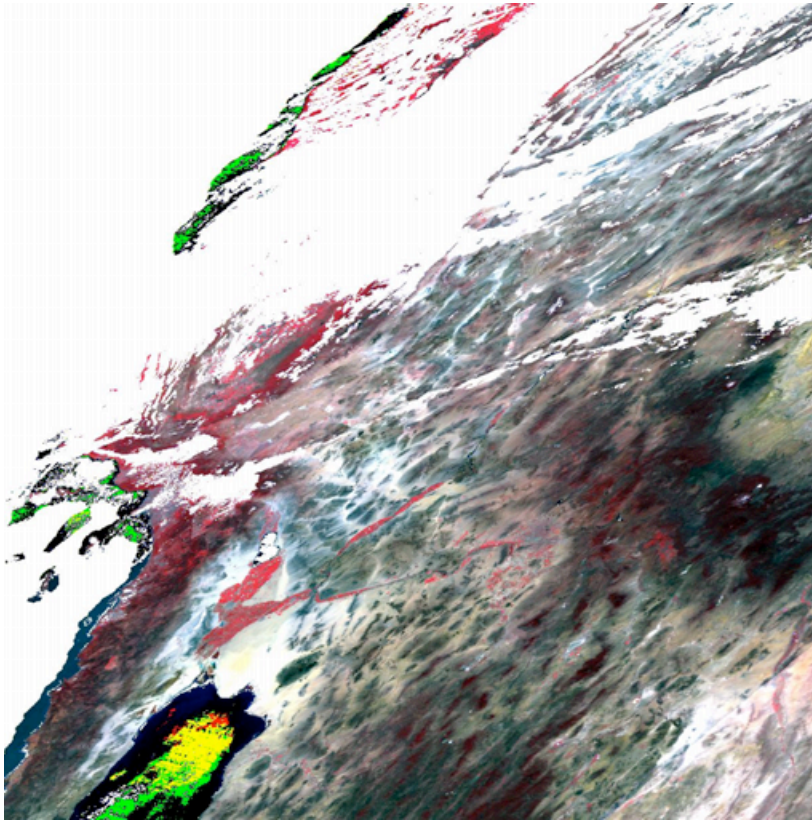
Data

- MODAGAGG — h08v05, day 114, year 2003
- MERIS — same site, Apr 24, year 2003
- MODIS Biome Map — h08v05, from 6 biomes v3 Land Cover Map

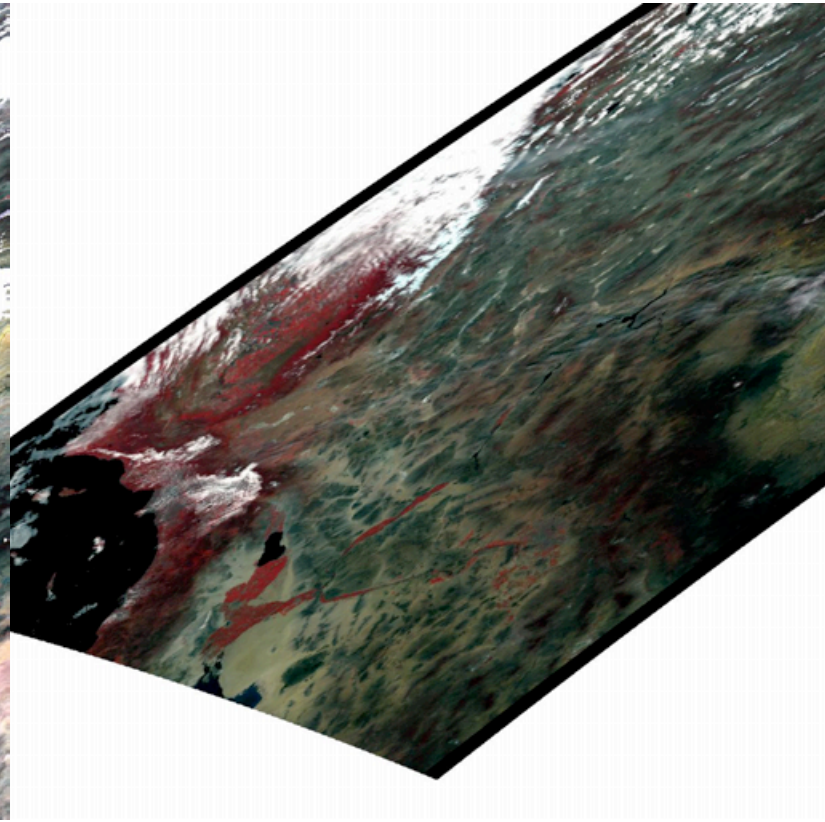


- Both are atmospherically corrected data
- MODAGGAGG data have aerosol correction, while MERIS do not
- The selected MERIS data suffer minimal aerosol contamination

Brief View of Surface Reflectance of MODIS and MERIS



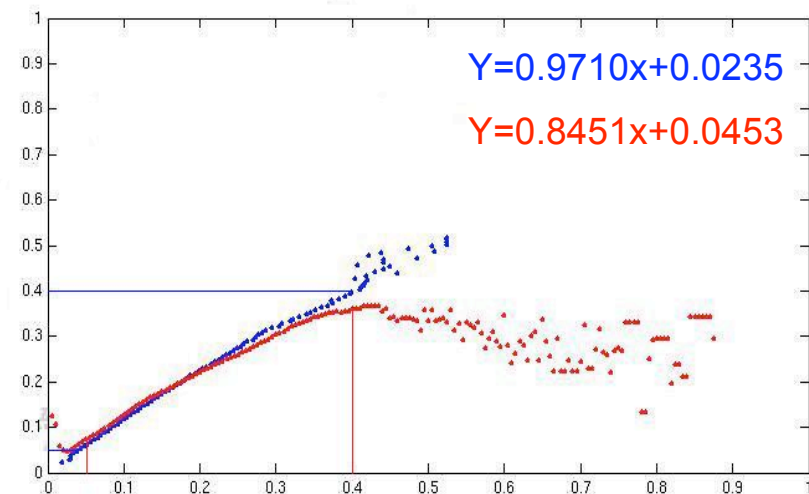
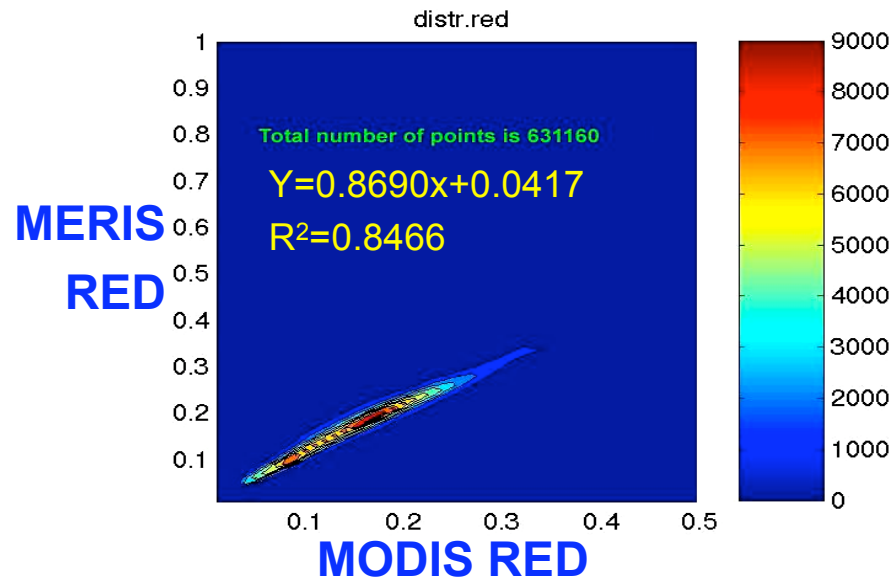
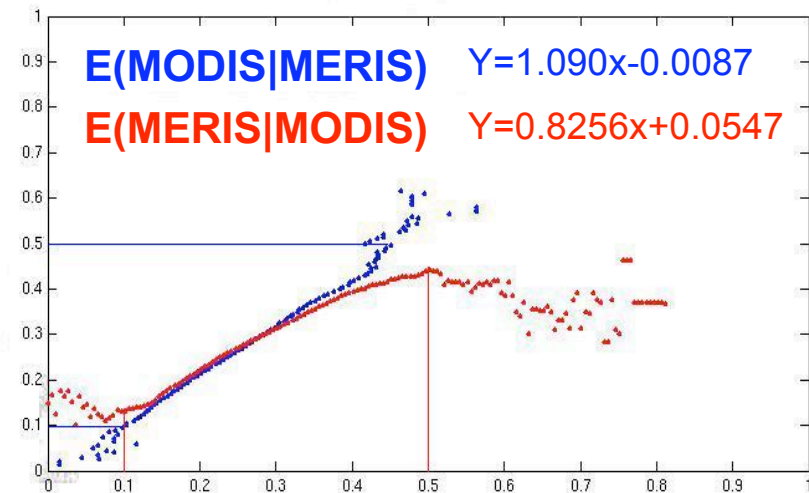
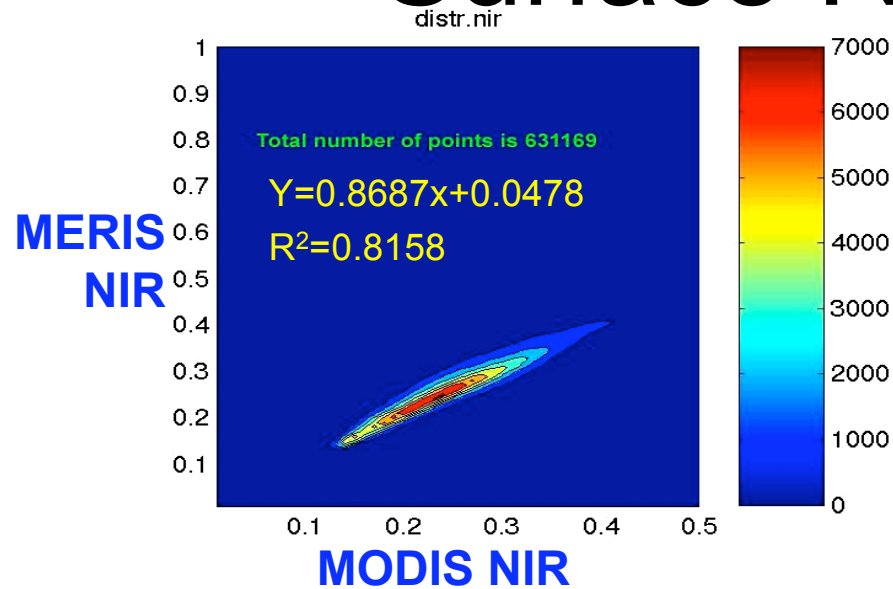
MODIS



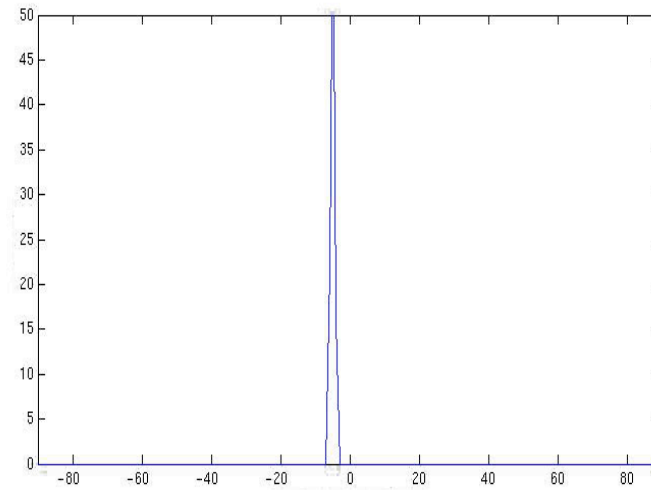
MERIS

- Re-projection of MERIS data
- Pre-selection of pixels without cloud contamination
- NIR-Red-Green composite pseudo color image

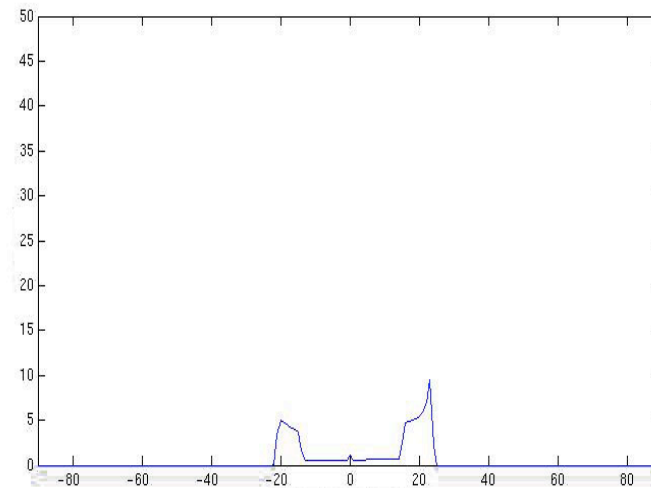
Surface Reflectances



Influence of Sun-View Geometry

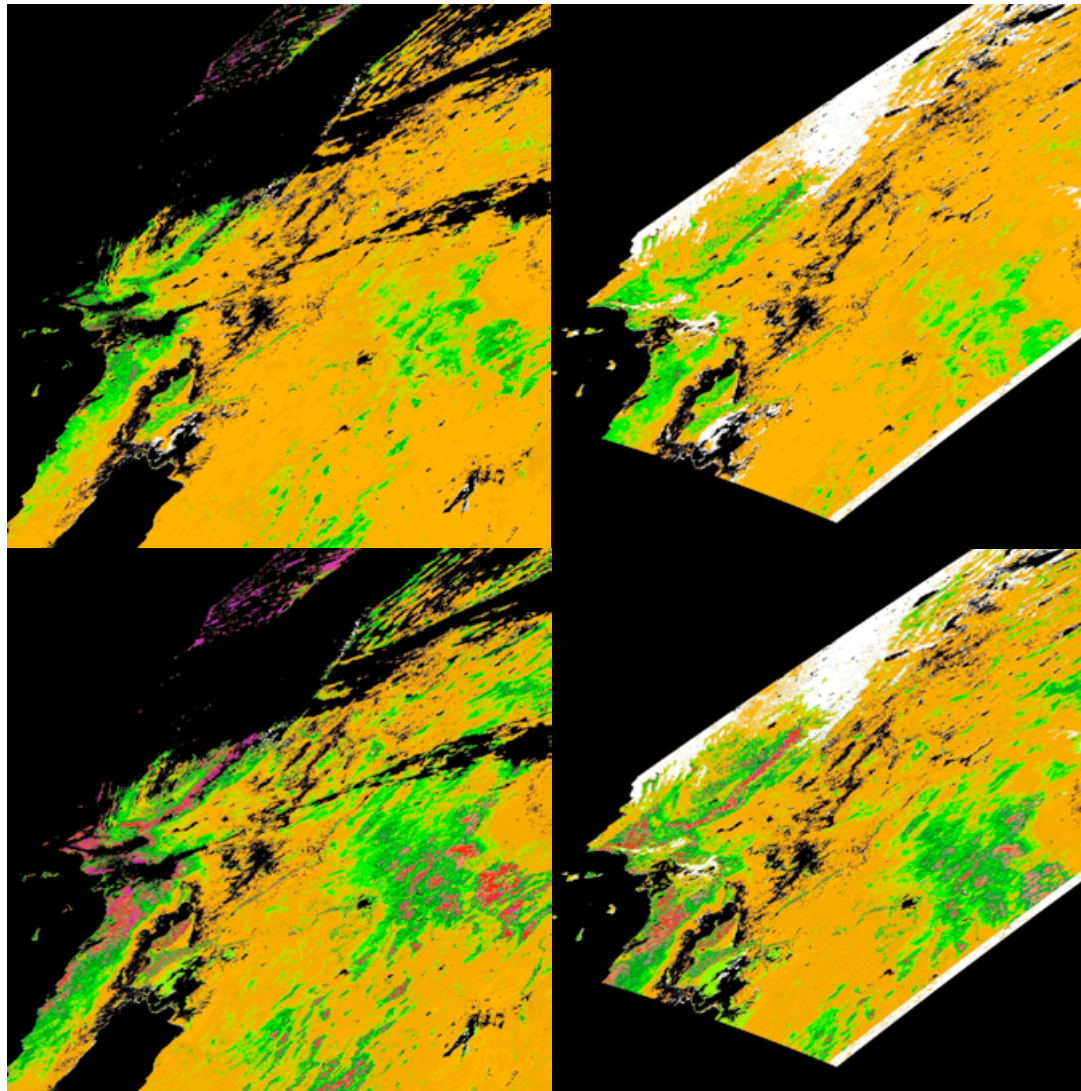
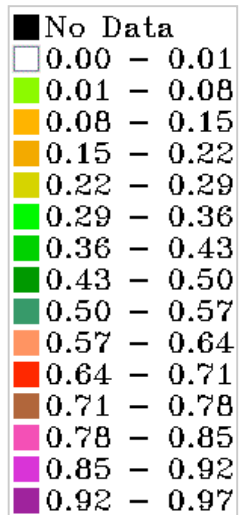
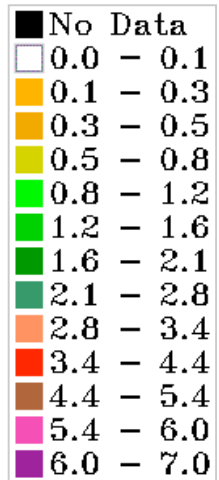


SZA(MODIS)-SZA(MERIS)



VZA(MODIS)-VZA(MERIS)

LAI/FPAR Based on MODIS and MERIS Data



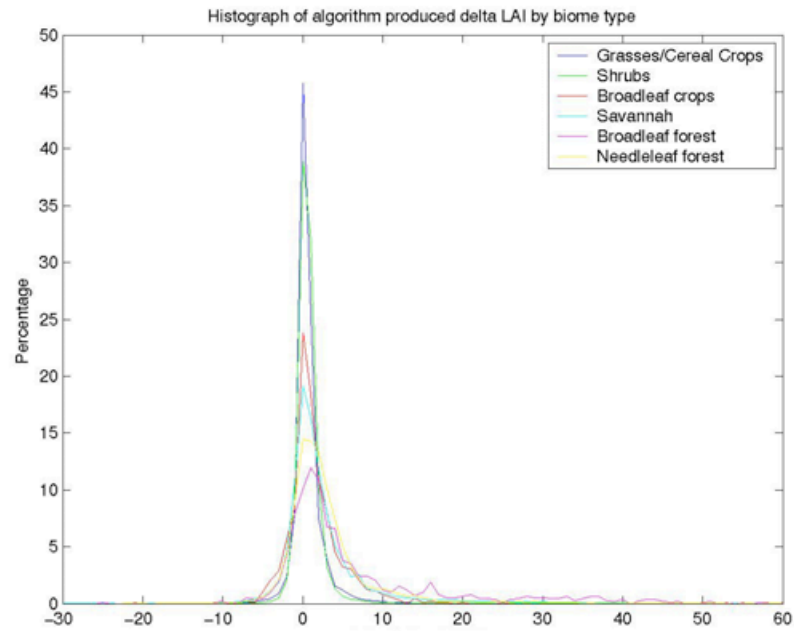
LAI

FPAR

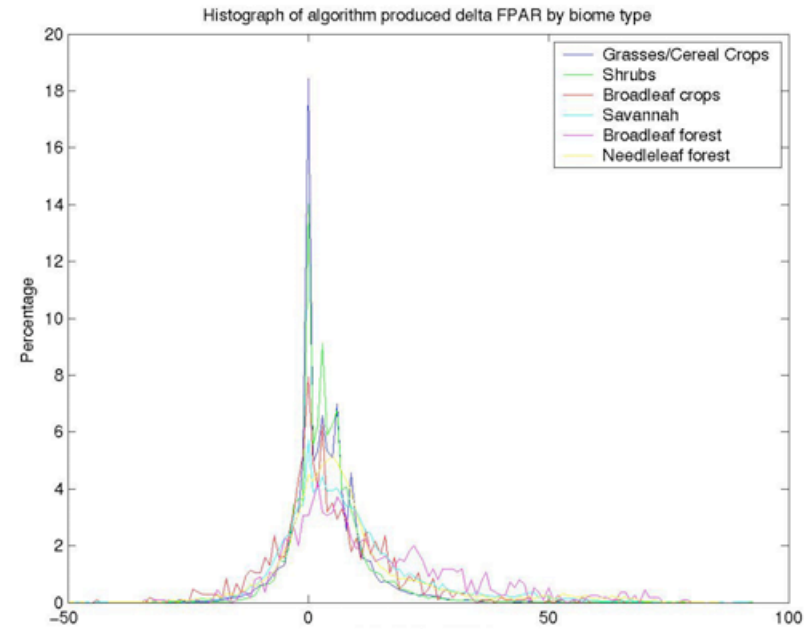
MODIS

MERIS

Delta LAI/FPAR



LAI(MODIS)-LAI(MERIS)



FPAR(MODIS)-FPAR(MERIS)

Conclusions

- MERIS reflectances differ from MODIS by 10~15%. This can be explained due to differences in VZA by ± 20 degrees
- Although a more detailed investigation is needed, these results suggest that it is possible to apply the MODIS LAI/FPAR algorithm to MERIS data in conjunction with appropriately tuned Look Up Tables to generate LAI/FPAR products from atmosphere corrected MERIS surface reflectances