Status of MODIS DSR and PAR (MCD18)

New MODIS Land Products added in 2017

Collection 6:
- MCD18A1: MODIS/Terra+Aqua Daily L3 5km DSR SIN Grid
- MCD18A2: MODIS/Terra+Aqua Daily L3 5km PAR SIN Grid

Collection 61:
- Under processing
- MCD18A1, MCD18A2: 1km
- MCD18C1, MCD18C2: CMG, 0.05°

Status and Updates:
- Changes in MCD18 C61
  - Fixed known programming errors
  - Spatial resolution improved from 5km to 1km
  - New 0.05° CMG products of DSR and PAR
  - Enhanced look-up tables (LUT)
- Extensive evaluation of MCD18 C6 products
- Alternative retrieval algorithms developed
  - Parameterization
  - Optimization-based
  - Machine learning

Recent Publications:

Figure 1. Results of direct comparison between the MODIS DSR (MCD18A1) and PAR (MCD18A2) daily products with the BSRN and AmeriFlux measurements. Further analysis shows the daily overpass counts strongly affect the accuracy of estimating daily estimates.

Figure 2. Example of a high resolution DSR map from the new MCD18 product and a coarse resolution map from the CERES product. It clearly shows the new MODIS product resolves much more spatial detail than the coarse resolution CERES product.