PERSIANN (Precipitation Estimation from Remotely Sensed Information using Artificial Neural Networks)
This system uses neural network function classification/approximation procedures to compute an estimate of rainfall rate at each 0.25° x 0.25° pixel of the infrared brightness temperature image provided by geostationary satellites. An adaptive training feature facilitates updating of the network parameters whenever independent estimates of rainfall are available. The PERSIANN system (Hsu et al., 1997) was based on geostationary infrared imagery and later extended (Hsu et al., 1999) to include the use of both infrared and daytime visible imagery. The PERSIANN algorithm used here is based on the geostationary longwave infrared imagery, while the TMI 2A12 product provided by the TRMM satellite is used for regular updating of the network parameters (Sorooshian et al., 2000). The PERSIANN system rainfall product covers 50°S to 50°N globally. The system uses grid infrared images of global geosynchronous satellites (GOES-8, GOES-9/10, GMS-5, Metsat-6, and Metsat-7) provided by NCDC, NOAA (Janowiak et al., 2000), and TRMM TMI instantaneous rain product (2A12) of NASA (kummerow et. al., 2000). The estimated PERSIANN 30-minute rain rates are aggregated to 6-hour accumulated

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URL: http://sophie.hwr.arizona.edu/precip

Spectral Intervals & applicable satellites:
Geostationary infrared channel (10.2-11.2 um) TRMM TMI instantaneous surface rain rate (product 2A12

Spatial Scale:
0.25^{o}x0.25^{o} lat/lon scale

Temporal Scale:
6 hour accumulation

Ancillary Data (e.g., soundings):
None

Additional Comments:
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