Title: **GLASS Land Surface Temperature product (1981-2000): instantaneous LST**

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Time range: 1981-2000

Temporal resolution: once per day

Spatial resolution: 0.05 °×0.05 °

Geographical scope: Global

Data volume: ~21GB zipped file

Data format: EOS-HDF (*.hdf)

Dataset composition: The dataset consists of a *.hdf and a *.xml file. Data variables (Table 1) are provided in *.hdf and metadata in *.xml. The dataset is organized and compressed in yearly files. Figure 1 shows an example of the GLASS instantaneous LST product.

Table 1　The variables in the *.hdf file.

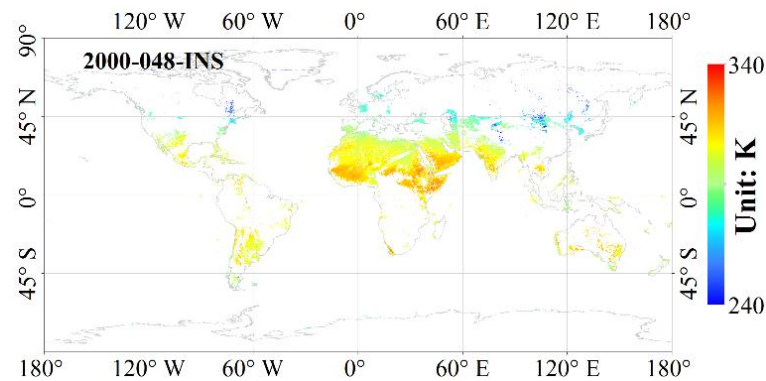| Variable	Description	Unit	Data type	Scale	Offset	Dimension
LST	Land surface temperature	K	Uint16	0.02	-	3600*7200
View_time	Time of LST observation (UTC)	hrs	Uint8	0.1	-	3600*7200
View_angle	View zenith angle	degree	Uint8	-	-	3600*7200
QA	LST quality flag	-	Uint8	-	-	3600*7200
Latitude	Latitude	degree	Uint8	-	-	3600*1
Longitude	Longitude	degree	Uint8	-	-	7200*1

Figure 1　The GLASS instantaneous LST on Feb. 17th, 2000