Global land surface climatology data retrieved from IASI measurements

D. K. Zhou[1], A. M. Larar[1], X. Liu[1], W. L. Smith[2,3], L. L. Strow[4], P. Yang[5], P. Schlüssel[6], and X. Calbet[6]

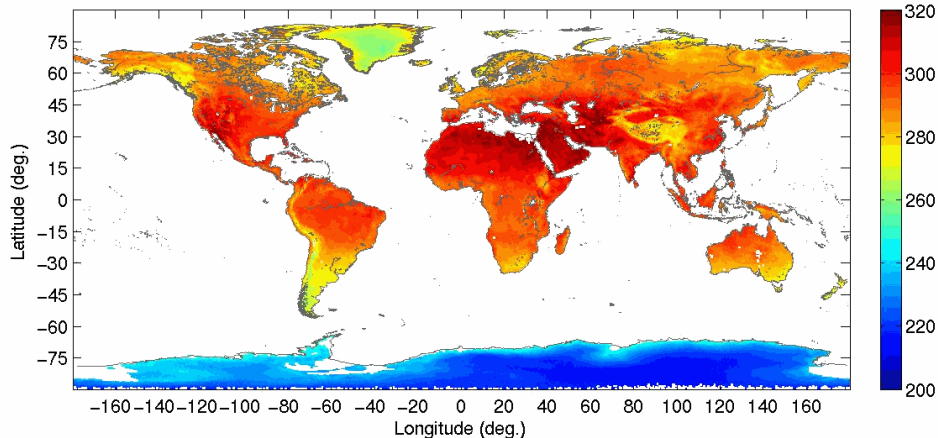[1]NASA Langley Research Center, Hampton, VA, USA; [2]Hampton University, Hampton, VA, USA;
[3]Hampton University, Hampton, VA, USA; [4]University of Maryland Baltimore County, Baltimore, MD, USA;
[5]Texas A&M University, College Station, TX, USA; [e]EUMETSAT, Darmstadt, Germany
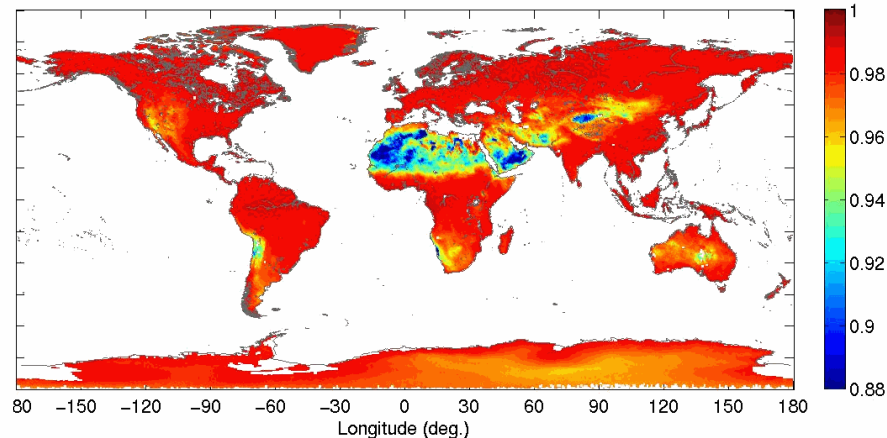
Hyperspectrally-resolved surface emissivity and skin temperature derived from IASI measurements for climate studies – a technique separates surface emissivity from skin temperature by representing the emissivity spectrum with EOFs derived from a laboratory measured emissivity database.

What's in the poster? algorithm, error estimation, results, validation, diurnal & seasonal variation, and discussion.

2007.07 Monthly Mean at 0.5–deg. Scale: Land Surf Temp (K)

2007.07 Monthly Mean at 0.5–deg. Scale: Land Surf Emis at 950 (1/cm)

Global land surface climatology data retrieved from IASI measurements

D. K. Zhou[1], A. M. Larar[1], X. Liu[1], W. L. Smith[2,3], L. L. Strow[4], P. Yang[5], P. Schlüssel[6], and X. Calbet[6]

[1]NASA Langley Research Center, Hampton, VA, USA; [2]Hampton University, Hampton, VA, USA;
[3]Hampton University, Hampton, VA, USA; [4]University of Maryland Baltimore County, Baltimore, MD, USA;
[5]Texas A&M University, College Station, TX, USA; [e]EUMETSAT, Darmstadt, Germany

Hyperspectrally-resolved surface emissivity and skin temperature derived from IASI measurements for climate studies – a technique separates surface emissivity from skin temperature by representing the emissivity spectrum with EOFs derived from a laboratory measured emissivity database.

What's in the poster? algorithm, error estimation, results, validation, diurnal & seasonal variation, and discussion.

Data available upon request.

Email: daniel.k.zhou@nasa.gov

2007.07 Monthly Mean at 0.5-deg. Scale: Emis at 950 (1/cm)