

# Land surface, atmosphere interactions for climate modeling - observations, models, and analysis

Kluwer Academic Publishers - Modelling and observation of biosphere

Name of metric	Temperature	Humidity	Surface fluxes	Atmospheric profile	Data time scale, period*	Based on
Mixing diagrams	N	Y	Y	N <sup>a</sup>	Dailytime	Y 2-m temperature and humidity evolution, surface fluxes, PBL depth
UCL index	N	N	Y	Y	Dailytime	Y 2-m temperature, humidity, PBL depth
CTP-H <sub>0</sub>	N	N	Y	Y	Morning	Y Temperature and humidity at specific atmospheric levels
HCF	N	Y	Y	Y	Any time of day	Y Atmospheric profile, available energy at land surface
RH tendency	N	Y	Y	Y	Dailytime	Y Atmospheric profile, surface fluxes
Predictor-Taylor ratio	N	Y	Y	Y	Instantaneous or time means	Y 2-m temperature, humidity, surface fluxes
DHM	Y	N	Y	Y	Daily or longer means	Y Logical autocorrelations of soil moisture
Terrestrial coupling lag	Y	Y	N	Y	Daily or longer means	Y Variances and covariances of surface fluxes, land state
Atmospheric coupling lag	N	Y	Y	Y	Daily or longer means	Y Variances and covariances of surface fluxes, atmospheric state
TSARS	N	Y	Y	Y	Morning and afternoon	Y Variances and covariances of CTP, H <sub>0</sub> , precipitation, surface fluxes
GLACE coupling strength (G)	Y	Y	Y	Y	Time means (~5 day)	N Ensemble statistics from model simulations

\*"Dailytime" means typically hourly from sunrise through afternoon; do not sum time by day for any specific time or interval

Description: -

- Landforms -- Mathematical models.

Climatology -- Mathematical models. Land surface, atmosphere interactions for climate modeling - observations, models, and analysis

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Notes: Includes bibliographical references and index.

This edition was published in 1990



Filesize: 18.52 MB

Tags: #Modeling, #projections #and #analysis

## Climate Models, Observations, and Computer Architectures

Although there have been many consentaneous conclusions in many aspects of the current researches, there is still great uncertainty in the simulation of effects of the LUCC on the regional climate.

## Zong

The simulation researches indicated that the difference in the irrigation area will lead to the difference in soil moisture. This paper reviewed the history and methods of the relevant researches, and summarized the influence of LUCC on the regional climate system and the simulation strategies according to the researches in the recent decades.

## Lecture04

Three distinct global estimates of historical land-cover change and land-use conversions for over 200 years *Frontiers of Earth Science* 2012 6 2 122 139 20 Pongratz J.

## Modelling and observation of biosphere

There are several other errors in the Preface alone, which does not bode well for the rest of the book. The issue, triggered during the conversion process between GRIB1 to GRIB2 by NCEP to facilitate transmission and storage, caused the non-instantaneous fields 00-01, 01-02, 02-03 hr statistical to appear instantaneous 00-00, 01-01, 02-02 hr statistical when decoded. In this chapter, we use the MME approach to present and discuss the model simulations.

## Related Books

- [Blank verse - by Charles Lloyd and Charles Lamb.](#)
- [Financing utility capital requirements - a joint report of committees of American Gas Association an](#)
- [Apologie for poetrie](#)
- [Neuere französische Malerei aus der Staatsgalerie Stuttgart - Ausstellung in der Staatlichen Kunsth](#)
- [Vasilii Malyshev.](#)