



Sensitivity of simulated land-atmospheric processes on scale and precipitation uncertainty

I.A. Vamvakas (1), A. Papadopoulos (1), E. Anagnostou (1,2), E. Serpetzoglou (1), P. Lawrence (3)

(1) Hellenic Center for Marine Research, Institute of Inland Waters, GR-193 12, Anavyssos, Greece (2) Department of Civil and Environmental Engineering, University of Connecticut, Storrs, CT 06268, USA, (3) CIRES, University of Colorado, Boulder CO 80309, USA

article

This study presents simulation experiments of land-atmospheric processes derived by the Community Land Model (CLM3). The goal of it is to assess the affect the simulation scale on different hydrological parameters (e.g., heat fluxes, precipitation, etc.).

At first, CLM simulations are evaluated against in-situ measurements followed by an examination of the land-surface sensitivity. A statistical analysis that includes time series comparisons, marginal distributions as well as comparisons of spacial and temporal correlations, completes the study.