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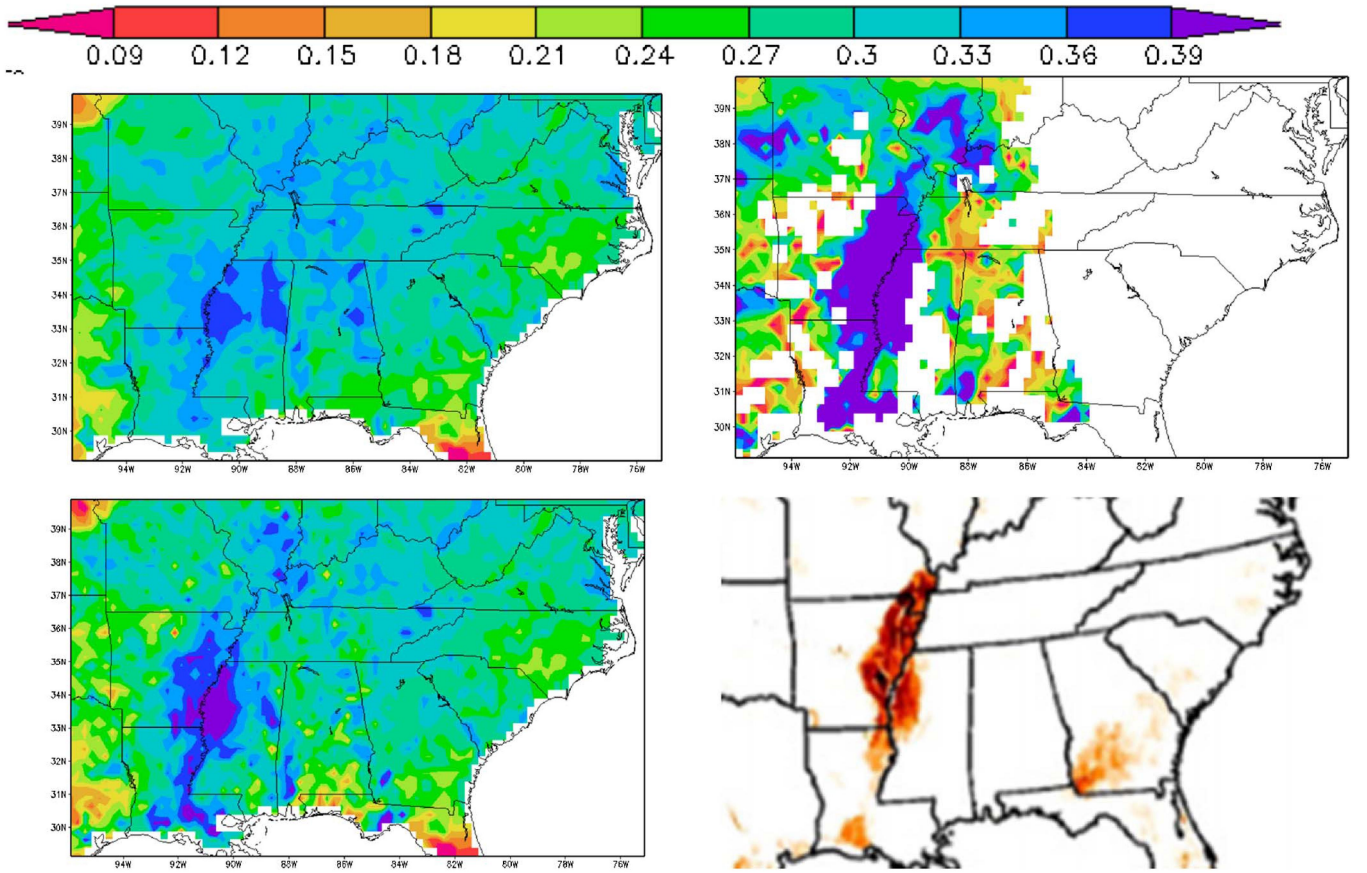

Assimilation of SMOS-retrieved soil moisture on 1 April 2013. (Upper left) Noah model surface soil moisture prior to assimilation. (Upper right) SMOS soil moisture. (Lower left) Model analysis after assimilation. Elevated moisture values observed by SMOS may be due to irrigation (lower right).

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About the Cover: The cover depicts the assimilation of soil moisture retrievals from the Soil Moisture and Ocean Salinity (SMOS) satellite mission into the Noah land surface model on 1 April 2013. (upper left) 0–10 cm model background soil moisture, prior to any assimilation, (upper right) SMOS retrieved near-surface soil moisture, (lower left) model analysis combining background and observations. The high soil moisture values observed in the Mississippi Valley by SMOS are hypothesized to be the result of irrigation associated primarily with rice agriculture, and corresponds well with a map of known irrigated areas (lower right). For more information, please see ''Assimilation of SMOS Retrievals in the Land Information System'' by Blankenship *et al.*, which begins on page 6320.