Session: C13 Poster: T05B

Reconciling temperature trends in the Southeast United States

Vasubandhu Misra[†]; J. -P. Michael; Ryan Boyles; Eric Chassignet; Melissa Griffin; Jim O'Brien
[†] Florida State University, USA
Leading author: vmisra@fsu.edu

A considerable spatial heterogeneity is observed in the linear trends of monthly mean maximum and minimum temperatures (Tmax and Tmin) from station observations in the Southeast United States (specifically Florida, Alabama, Georgia, South Carolina, and North Carolina). In a majority of these station sites, the warming trends of the Tmin accelerate with increases in urbanization while trends in Tmax show reduced warming or increased cooling trends with irrigation. The spatial heterogeneity of these clearly indicates that local features such as irrigation and urbanization play an important role in conflating or deflating the influence of large-scale low-frequency temperature variations and the global warming signal.