Weather stations that collect reliable, measured meteorological data are becoming more widely distributed because of advances in both instrumentation and data server technology. However, sites collecting soil moisture and soil temperature data remain sparse with some recent work that is white and complete to be collected in conjunction with soil data. Thanks to the advent of sensors that can collect continuous soil–thermal data for sites, we have a step forward and incorporated thermal properties measurements into part of our strategic instrument and methodology - data collection and analysis. Continuous data sets that determine the effect of climate variability on soil thermal conductivity can increase by as much as 25 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation. Thermal dryout curves have also been developed to correct in-situ measurements of thermal conductivity and conductivity with moisture. These moisture–soil moisture data indicates that thermal conductivity can increase by as much as 30 percent during wetting front propagation.