Mismatch between expectations/surface T and satellite observations of lower atmospheric temperature trends

Fig. 3: Global maps and zonal averages of linear temperature trends, 1979-2003. Merging data are shown. (A) 10°T temperature trends from this work, (B) 10°T temperature trends from Christy et al. (1999), (C) Surface temperature trends from this work, and (D) Christy et al. (2003). Trend differences, surface minus 10°T, 10°T minus this work, and (E) Christy et al. (2003) trend differences, this work minus Christy et al.
Mismatch between expectations/surface T and satellite observations of lower atmospheric temperature trends

Mears and Wentz (2005) corrected the data set, reported more warming.

Christy et al. (2000, 2003) reported some cooling of lower atmosphere temperatures as estimated by satellites.

Corrected data set in better agreement with surface temperatures.

Mismatch between expectations/surface T and satellite observations of lower atmospheric temperature trends

Once new analyses are considered, trends in atmosphere and at surface match!