



**Figure 1.** (top) The HadCrut series of global surface mean temperature anomalies from January 1850 to January 2017 (<https://crudata.uea.ac.uk/cru/data/temperature/>; monthly mean values). (bottom) Its Fourier spectrum.

and 0.04 °C (4.7 years, 5% of the total variance). SSA allows one to reconstruct the original signal from a reduced number of components. In Figure 10a we show the reconstruction obtained with only the first two components (that account for 37% of the total variance) and in Figure 10b the sum of the seven first