





Figure 2: CTD salinity post-cruise correction. (a) Salinity difference between samples (blue), sensor 1 (green), and sensor 2 (red) and World Ocean Atlas 2013 (WOA2013; Zweng et al., 2013), respectively (sample/CTD data minus WOA2013). (b) Difference between salinity samples and CTD sensor 1 before sensor correction. (c) Difference between conductivity inferred from the samples and CTD sensor 1 before sensor correction. (d) Value of conductivity slope correction applied to the CTD sensor at each cast. Blue dots show value derived from the sample-sensor comparison and red dots the interpolated values for casts when no salinity samples were available. (e) Difference between conductivity inferred from the samples and CTD sensor 1 after the sensor correction has been applied. (f) Difference between salinity samples and CTD sensor 1 after the sensor correction has been applied (published data set). Single data points are displayed as gray crosses, data points removed from the analysis are shown as red crosses, averages of each cast are shown as colored dots, and linear regression lines of the cast averages as colored lines. The results of the regression analyses are displayed in the figure legend. Vertical black lines denote the end of legs 1 and 2, respectively. Note that only sensor 1 is being published in the final data set, due to a failure of sensor 2 during leg 3 and missing post-cruise calibration values for sensor 2.