



Figure 4: Cross-track geostrophic velocity ( $u_g$ ;  $\text{cm s}^{-1}$ ) determined by the glider. Top:  $u_g$  relative to 600m (red indicates eastward and blue westward), with overlaid white contours of sigma-theta. Middle: Absolute cross-track  $u_g$  (see text) at the reference level (black line), at the surface (red), and the vertical average (green). The blue dot is the drift speed of Argo float 5900911 when it crossed the glider track (see Fig. 2). Bottom: Absolute cross-track  $u_g$ .