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**Supplementary material for**  
Revisiting the role of intermittent heat transport towards Reynolds  
stress anisotropy in convective turbulence

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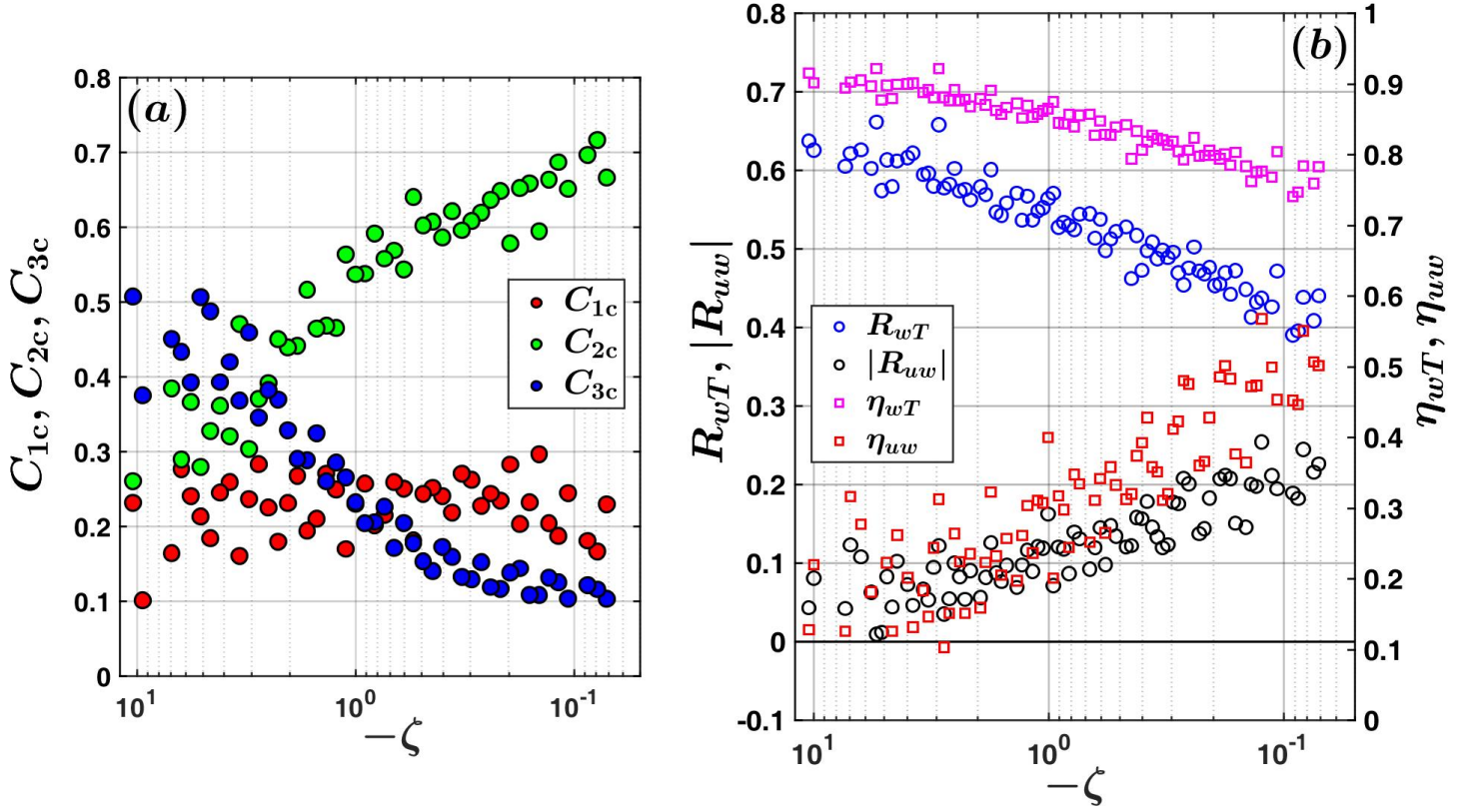


Figure S1: The (a) three anisotropy coefficients ( $C_{1c}$ ,  $C_{2c}$  and  $C_{3c}$ ) and (b) correlation coefficients between  $w$  and  $x$  ( $R_{wx}$ , where  $x$  can be  $T$  or  $w$ ) along with the transport efficiencies of heat and momentum ( $\eta_{wT}$ ,  $\eta_{uw}$ ) are plotted against the stability ratio  $-\zeta$ . The correlation coefficients are shown on the left  $y$  axis of panel (b), whereas the transport efficiencies are shown on the right  $y$  axis. Note that the absolute values of  $R_{uw}$  ( $|R_{uw}|$ ) are plotted instead of their original negative values and the  $x$  axis is reversed such that the  $-\zeta$  values proceed from large to small.

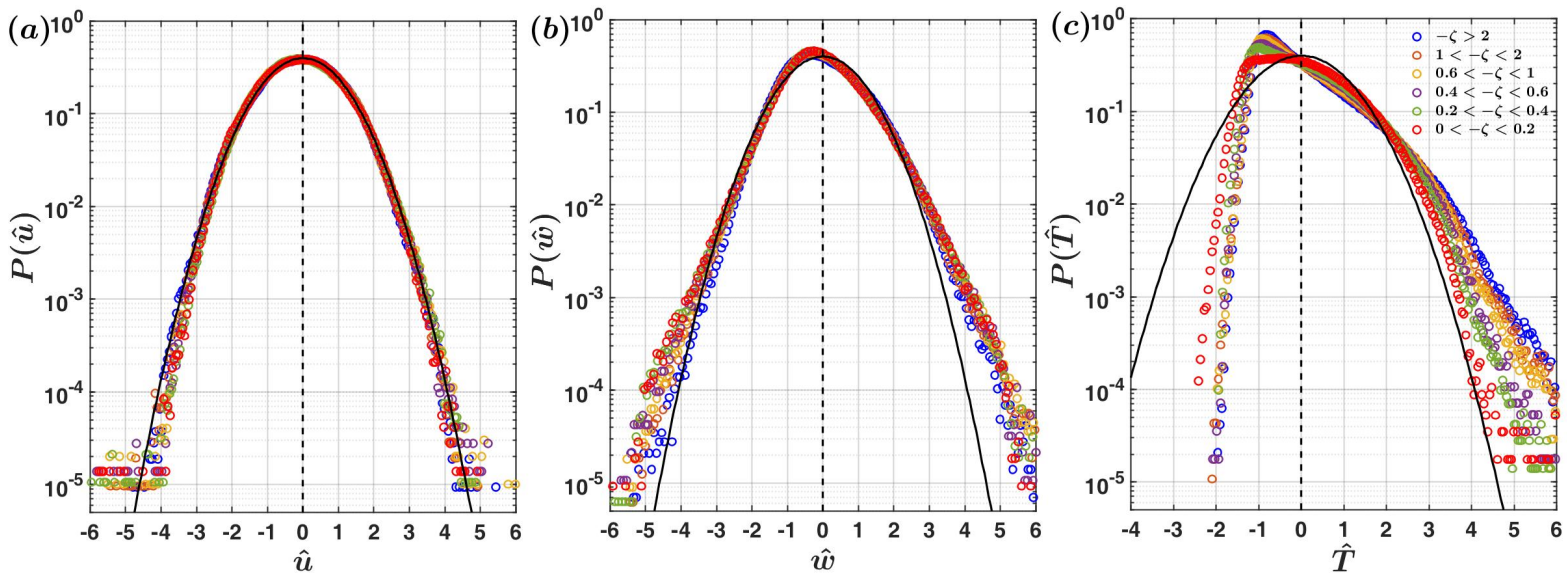


Figure S2: The PDFs of (a)  $u'/\sigma_u (\hat{u})$ , (b)  $w'/\sigma_w (\hat{w})$ , and (c)  $T'/\sigma_T (\hat{T})$  are shown for the six different classes of the stability ratio as indicated in the legend on panel (c). The thick black lines on all the panels represent the Gaussian distribution.

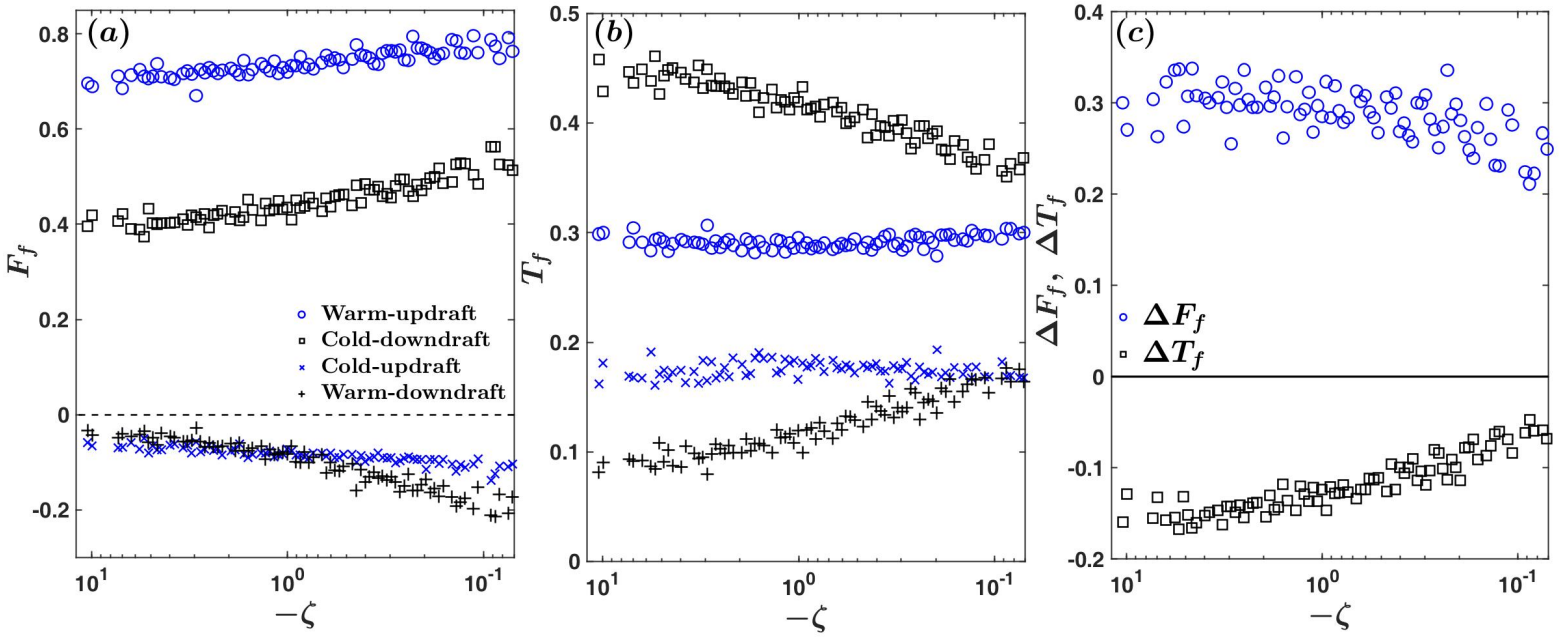


Figure S3: The (a) heat flux fractions ( $F_f$ ), and (b) time fractions ( $T_f$ ) associated with the four different quadrants of  $T'-w'$  plane, as indicated in the legend in panel (a). The differences in flux fractions ( $\Delta F_f$ ) and time fractions ( $\Delta T_f$ ) between the warm-updrafts and cold-downrafts are shown in panel (c).