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Supporting Information for ”Learning Atmospheric Boundary Layer Turbulence”

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1. Figures S1 to S3

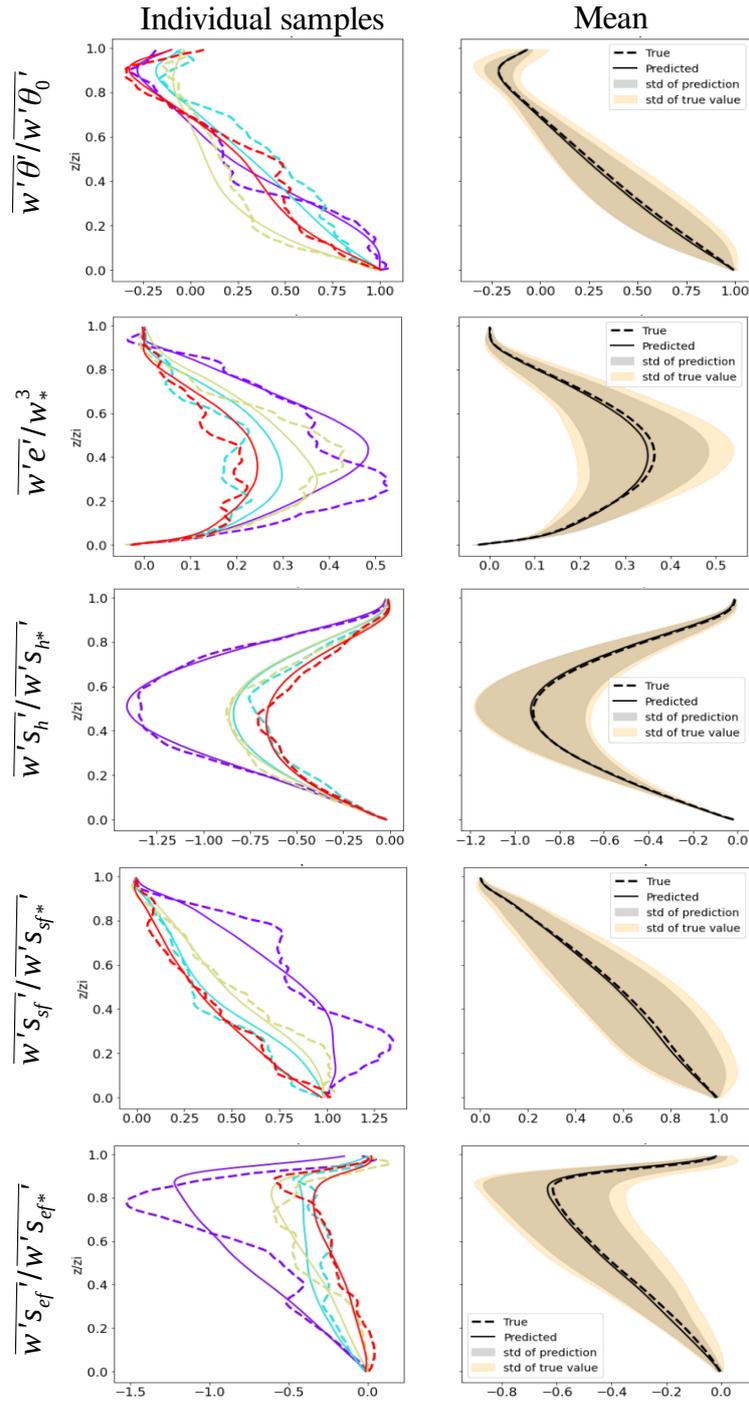


Figure S1: Plots show Flux-NN prediction of scaled vertical turbulent fluxes for simulation 16-0.06. In the left column, the colors distinguish randomly selected samples, displaying the predicted fluxes (line) alongside the true fluxes (dashed line). The right column showcases the mean of the predicted (solid line) and true fluxes (dashed line). Shading indicates the variance in the prediction and true profiles.

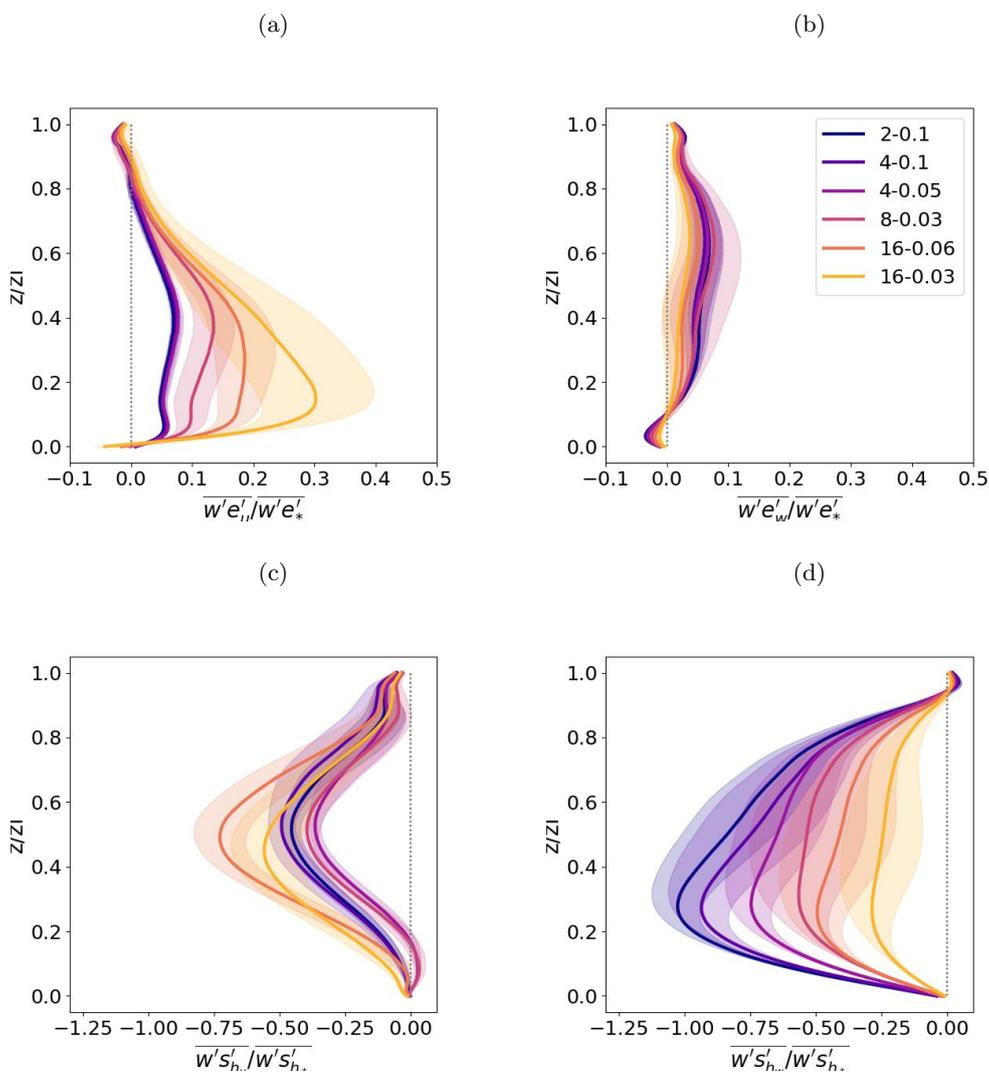


Figure S2: TKE and height dependent tracer flux decomposition to two main modes related to shear and convection.

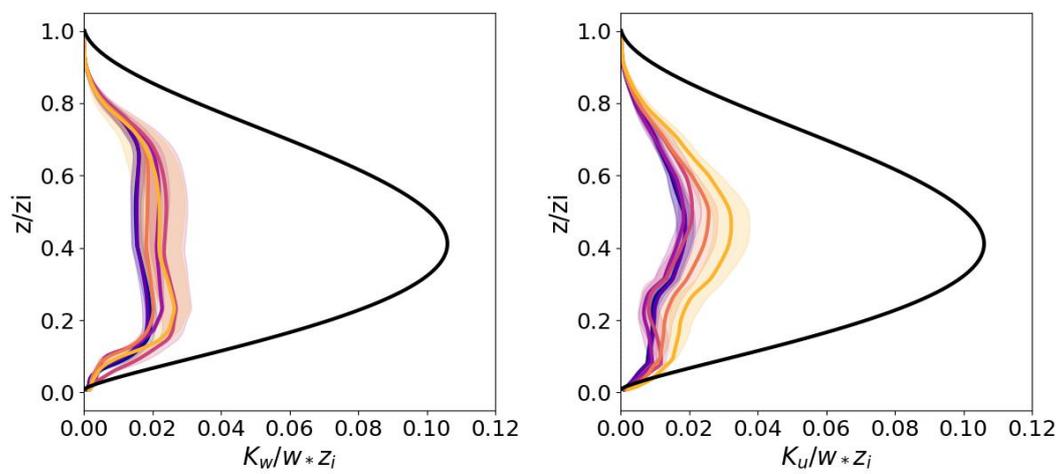


Figure S3: Plot shows (left) convective and (right) shear eddy diffusivity, computed following section 4.4. Black lines shows the eddy diffusivity computed from Holtslag and Moeng (1991) for comparison.