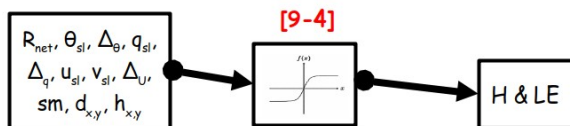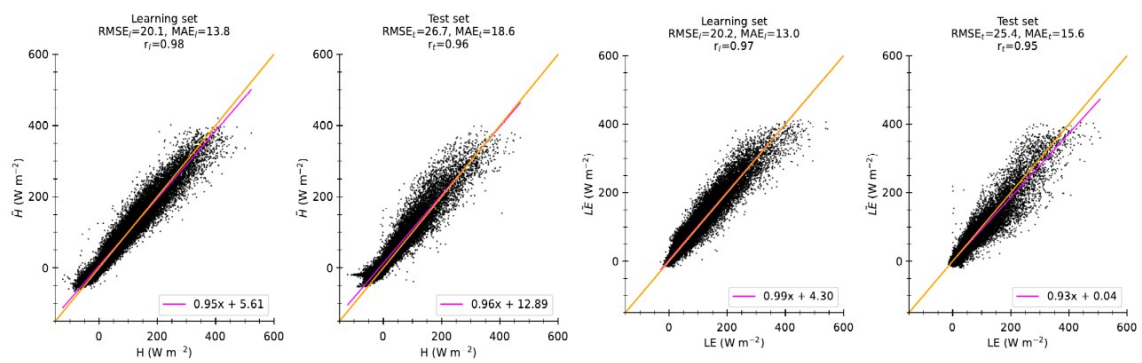**Interactive comment on "Using a data-driven statistical model to better evaluate surface turbulent heat fluxes in weather and climate numerical models: a demonstration study (https://doi.org/10.5194/egusphere-2024-568)"**

Dear reviewers,

Thank for your helpful suggestions, which led to significant improvements of this paper.

The syntax error in Figure 1 has been corrected, and a more detailed caption has been added (Page 5).

➜ **Tests on input variables**

Learning set
$RMSE_l=20.1$, $MAE_l=13.8$
$r_l=0.98$
0.95x + 5.61

Test set
$RMSE_t=26.7$, $MAE_t=18.6$
$r_t=0.96$
0.96x + 12.89

Learning set
$RMSE_l=20.2$, $MAE_l=13.0$
$r_l=0.97$
0.99x + 4.30

Test set
$RMSE_t=25.4$, $MAE_t=15.6$
$r_t=0.95$
0.93x + 0.04

R_{net}, θ_{sl}, Δ_θ, q_{sl}, Δ_q, u_{sl}, v_{sl}, Δ_U, sm, $d_{x,y}$, $h_{x,y}$

[9-4]

H & LE

Generalization is substantially enhanced with these 13 variables.

Apprentissage = {2015, 2016, 2017, 2019, 2020}
Test = {2012, 2013, 2014, 2018, 2021}