



## Corrigendum to

# “Comparison of methods for resolving the contributions of local emissions to measured concentrations” published in Atmos. Meas. Tech., 18, 2201–2240, 2025

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Upon submission, five of the labels on Fig. 9 were incorrectly ordered as follows, where the subscript  $X$  refers to the relevant pollutant for each panel:

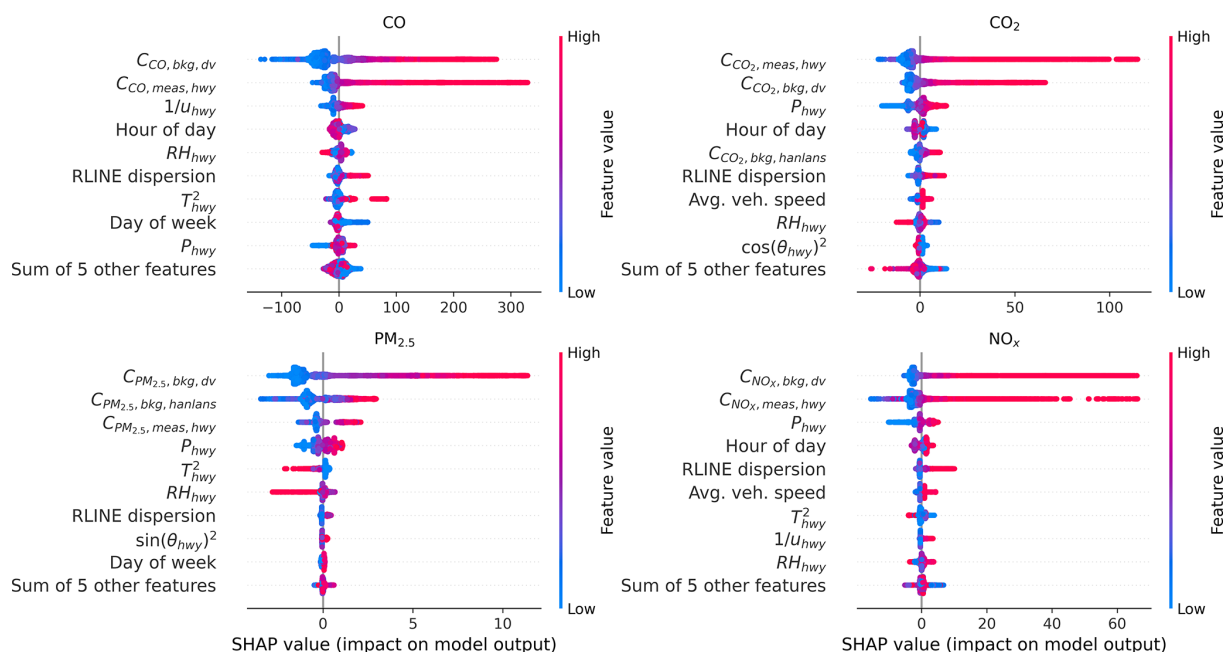
Existing label	Corrected label
Hour of day	$C_{X,\text{bkg,dv}}$
Day of week	$C_{X,\text{bkg,hanlans}}$
$C_{X,\text{bkg,dv}}$	$C_{X,\text{means,hwy}}$
$C_{X,\text{bkg,hanlans}}$	Hour of day
$C_{X,\text{means,hwy}}$	Day of week

Correcting this labeling (see Fig. 9 below) increased the importance of the  $C_{\text{meas}}$  predictor relative to hour of day and day of week, which better aligns with the relative importance we expected. Accordingly, the discussion of the  $C_{\text{meas}}$  predictor being less important than expected can be removed so that the second and third paragraph of Sect. 3.4 can be simplified to:

For all pollutants in Fig. 9, the XGBoost models were capable of providing accurate estimates of  $C_{\text{bkg}}$  through a combination of chiefly  $C_{\text{meas}}$  and measurements from the urban background stations. Other features such as meteorology, hour of day and day of week, or traffic behaviour had varying but lower importance, suggesting that these machine learning models identified some additional information in these features that was not cap-

tured by downwind and urban background pollutant concentrations alone. Similar conclusions can be drawn from the elastic net models' coefficients (Appendix L).

These changes have no impact on the study's final conclusions.



**Figure 9.** SHAP beeswarm plots for XGBoost models predicting upwind background concentration at the highway site. These figures indicate relative degree of importance – for example, a blue dot far to the right on a feature indicates that a low value of that feature was associated with a high predicted concentration. Each dot represents one predicted concentration and one value of that feature (bkg: background; dv: Downsview; hwy: highway; meas: measured).