

This revised manuscript has clearly improved. The points raised by the reviewers have adequately been addressed. I think that the paper can now be published. I have a few suggestions for technical corrections (see below).

Thank you for your comments. The point-by-point responses are given below.

Abstract, line 15: The "one of" can be deleted. Or write something like "HONO, an oxidized nitrogen compound, which plays an important role ..."

Revised: Nitrous acid (HONO) plays an important role in the formation of ozone and fine aerosols in the urban atmosphere

Page 3, lines 82-83. The sentence that is new in the revised version is difficult to understand and probably not correct. Please rewrite.

Revised: Among the ML methods, the neural network (NN) architecture is widely used owing to its powerful ability to process large volumes of data. In particular, a multilayer artificial NN (ANN), referred to as a deep NN (DNN), employs statistical methods to learn nonlinear relationships within the data and yield optimal solutions for a target species without prior knowledge of the underlying physicochemical processes (Reichstein et al., 2019;Schultz et al., 2021).

Page 4, line 114. Should be Gil (2021) instead of Gil et al. (2021).

Revised: The dataset used to train, test, and validate can be downloaded from Gil (2021).

Page 5, line147. Should be "(2847 observations)" or "(2847 data points)" or similar instead of "(2847)".

Revised: Finally, 54.2 % of all the available measurement data (2847 data points) were used to construct and evaluate RNDv1.0.

Page 11, lines 318-320. The role of particles for HONO formation should be made a bit clearer. Avoid to use the two terms "nanoparticles" and "submicron particles" here. They mean not the same and using these different terms here is confusing.

Revised: Indeed, a previous study showed that HONO formation is closely related to the surface area of particles with diameters in the range of hundreds of nanometers (Gil et al., 2021).

Figure 6, x-axis. Change label to "Hour" instead of "HONOobs (ppbv)".

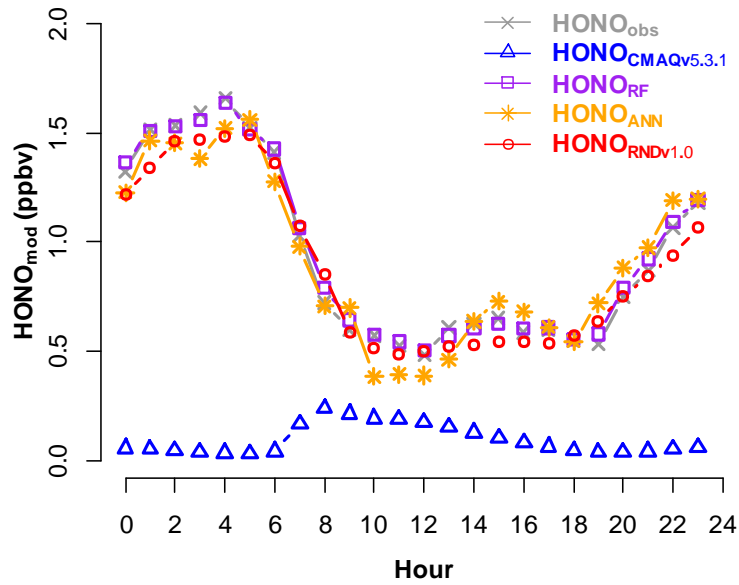


Figure 6. Average diurnal variation of the measured HONO (HONO_{obs}) and calculated HONO (HONO_{mod}) using CMAQv5.3.1 (blue triangle), RF (purple square), ANN (orange star), and RNDv1.0 (red circle) during the KORUS-AQ campaign (May–June 2016).

Figure S4, legend. Should be "trees" instead of "tress".

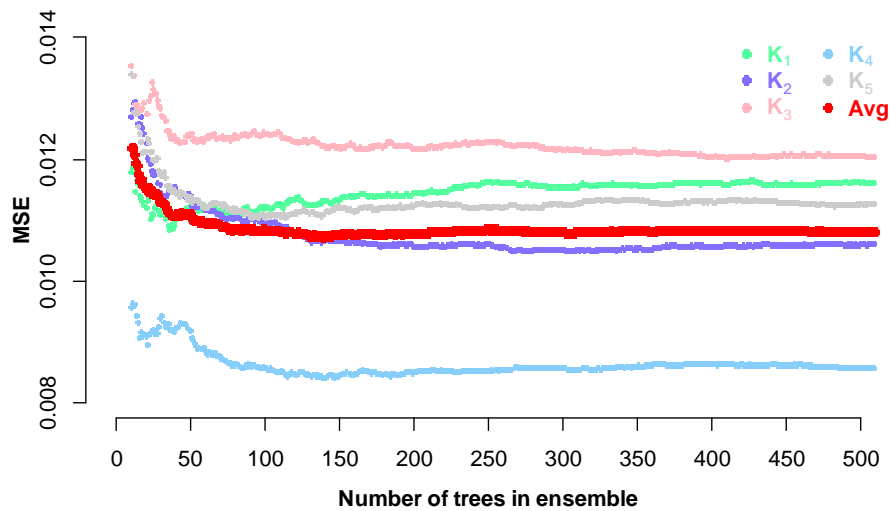


Figure S4. K-fold cross validation for Random Forest (RF) model by changing the number of [trees](#) in ensemble.

More general note: The manuscript should again be carefully checked for linguistic errors.