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**Plain Language Summary:** In this paper, we propose an H-infinity filtering approach for the prediction of bias in post-processing of past predictions and past measurements regarding weather forecast. The proposed H-infinity filtering adopts minimax strategy. The proposed H-infinity filtering approach minimizes maximum possible errors whereas a recently proposed approach that adopts the Kalman filtering (KF) minimizes the mean square errors.

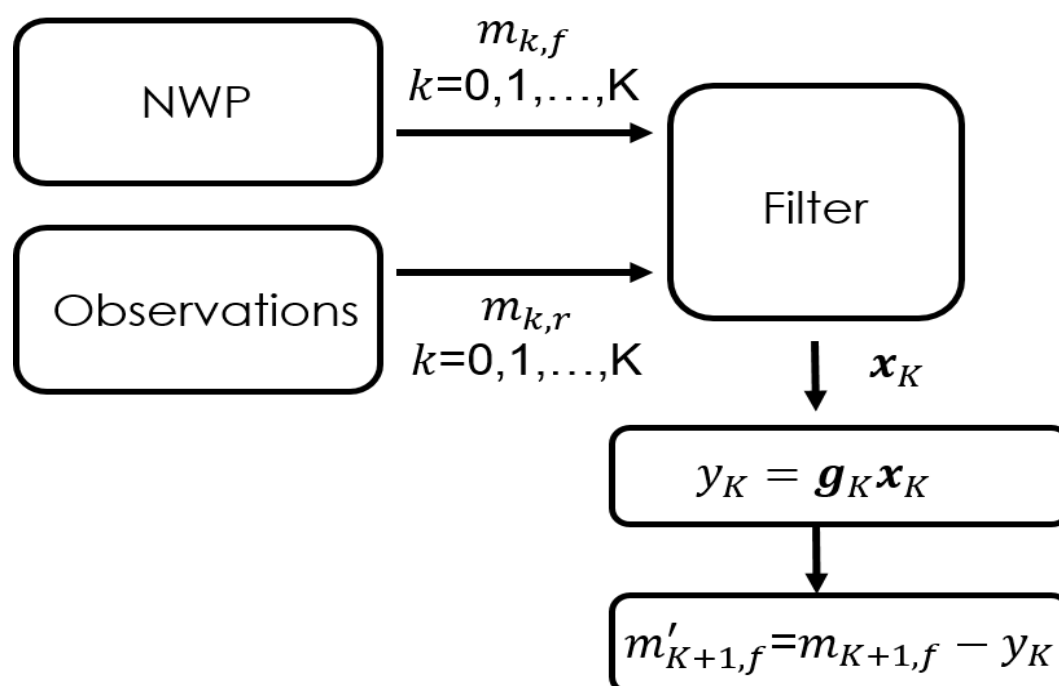


Figure 1. Block diagram of post-processing by a filter such as the Kalman filter or H-infinity filter.

An numerical weather prediction (NWP) output of  $m_{K+1,f}$  is corrected by  $y_K$ , and updated as  $m'_{K+1,f}$  based on past observation, i.e. weather measurement.

- The proposed approach outperforms the method based on the KF with less complexity and no prior noise information.
- This approach can be applied for prediction of any meteorological parameters as long as NWP is employed.