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A BAYESIAN FRAMEWORK OF A STATISTICAL MODEL FOR FORECASTING ATMOSPHERIC DISPERSION

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SUMMARY

In this paper we extend the work of Smith & French (1993) which is concerned with describing a general framework of a statistical model focusing on the problem of forecasting the spread of contamination in case of a nuclear or chemical accident. The statistical model embeds physical models. It addresses issues in the uncertainty management which is lacked in the conventional atmospheric models (deterministic models). We provide some suggestions to manage the uncertainty about certain parameters like the height of the release at the emission site.

Keywords and phrases: Atmospheric models, Bayesian forecasting, puff models.

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