

Interactive comment on “On tuning of atmospheric inverse methods: Comparison on ETEX and Chernobyl datasets using FLEXPART v8.1 and v10.3” by Ondřej Tichý et al.

Anonymous Referee #2

Received and published: 28 August 2020

The paper “On tuning of atmospheric inverse methods: Comparison on ETEX and Chernobyl datasets using FLEXPART v8.1 and v10.3” addresses a very important aspect of emergency management, the reconstruction of the mostly unknown source term. It discusses in detail the importance of prior knowledge which is often very small in real situation.

The paper discusses tuning approaches of some of the key parameters. This is discussed in the main part of the paper, however, more from a theoretical perspective. The paper would gain from a discussion on the application for a novel source term that has no a priory knowledge. Which steps should be performed to optimise the parameters

C1

for the reconstruction of the source terms?

Otherwise, the paper is very informative and does not require modification in structure and style.

The authors may also briefly discuss the difference between version 8.1 and 10.3 and to which extend the same functionality is available in the newest version 10.4

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2020-121>, 2020.

C2