

# *Interactive comment on* "Toward the assimilation of images" *by* F.-X. Le Dimet et al.

### F.-X. Le Dimet et al.

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We thank the Editor for addressing the question of Review #1 and pointing out the directions for us to clarify our position about the point 3 of Review #3.

Below are our responses and comments to the questions raised by the Editor:

#### 1 Comment 1

#### 1.1 Comment from the Editor

in regard to Review #1, since this journal is focused on geophysics, addressing data assimilation in medicine will be interesting but not essential for this review paper.

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#### 1.2 Author's response

We thank the Editor's for answering the comment from Referee #1;

#### 2 Comment 2

#### 2.1 Comment from the Editor

Review #3, point 2) wondered if the authors were non-objective in claiming Kalman filters were not used in operational centers. In defense of the authors, I believe their claim is indeed true. Maybe the authors can give an order of magnitude estimate on the computing power needed to do data assimilation with a Kalman filter as compared to using variational assimilation for a typical operation model, which should demonstrate that the Kalman filter is far too expensive to be practical.

#### 2.2 Author's response

We thank the Editor's for giving indications to answer the comment from Referee #3. We also Thank O. Talagrand for pointing to various sources to answer the question.

#### 3 Comment 3

#### 3.1 Comment from the Editor

It seems Sects. 6.1.5 and 6.2 need to be made clearer, based on Reviews #3 and #2.

## 3.2 Author's response

We rewrote section 6.1.5 and section 6.2, see our response to Reviews #2 and #3.

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 1381, 2014.

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