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www.atmos-chem-phys.org/acpd/4/S1749/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Using an extended Kalman filter learning algorithm for feed-forward neural networks to describe tracer correlations" *by* D. J. Lary and H. Y. Mussa

W. Sturges (Editor)

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A revised manuscript was submitted by the authors for consideration for full and final publication in Atmospheric Chemistry and Physics. It has not been accepted for publication.

Referee #1 originally gave an assessment of the manuscript in unrevised form (as seen here) of Fair for Scientific Significance, Fair for Scientific Quality and Good for Presentation Quality. Referee #2 gave an initial rating of Good, Good, and Fair for the same categories. It is generally expected that manuscripts will score Good or above in all categories to be accepted for final publication in Atmospheric Chemistry and Physics (see http://www.copernicus.org/EGU/acp/criteria.html). An initial substandard

assessment can, of course, be improved and superseded in the course of revision. It was felt, however, that the revised manuscript was insufficiently improved in this case to meet the strict acceptance criteria, and this was reinforced by the assessment of a third referee who had been called in to adjudicate on the revised manuscript.

The following was sent to the corresponding author by way of explanation for this editorial decision. At the time of writing a reply from the authors has not been received, but may be published here in due course.

Dear Dr Lary:

With regard to:

MS-NR: acpd-2004-0077 Version: 1 Received: 19 April 2004, 16:53 Title: Using an Extended Kalman Filter Learning Algorithm for Feed-Forward Neural Networks to Describe Tracer Correlations Author(s): D. Lary and Y. Mussa

I regret to inform you that your paper has not been accepted for publication in Atmospheric Chemistry and Physics.

One of the two referees did not provide a full review of your paper, but nevertheless had initially rated the paper as only 'Fair' for Scientific Significance, and 'Fair' for Scientific Quality. This is a matter of concern, as such a rating is below that we would normally consider adequate for final publication. The rating can, of course, be improved during the course of revision. I am not convinced, however, that there have been significant changes made in the revised version.

I did attempt to contact the non-responding referee for an explanation of the low initial rating, alas without success. I instead sent your revised manuscript to an acknowledged expert in neural network analysis for comment. I also noted that this manuscript closely resembles an earlier publication of yours in ACP ("Using neural networks to describe tracer correlations", D. J. Lary, H. Y. Mussa, M. D. Müller, Atmospheric Chemistry and Physics, Vol. 4, pp 143-146, 31-1-2004). I also sent this manuscript to the

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new referee.

The referee's response is given below:

"I don't think the new 'result' which the authors report warrants publication in 'Atmospheric Chemistry and Physics'. The original paper had something of interest for the particular readers of this journal, but the new paper shows only a minute improvement - their new method may of interest in the Neural Net community and they should seek to publish it in that literature if it is of sufficient originality. I have been adopting this approach with my own NN papers, i.e. to clearly target the papers to the appropriate respective audiences."

Given that this latest manuscript appears to represent only a modest advance on your earlier publication, I am therefore satisfied that it does not warrant a higher rating for 'Significance'. The new referee is also in accord with Referee #2 who noted that "ACP, as I understand it, is not the ideal forum to discuss computational algorithms, for which there are more suitable publications available". Referee #2 also recommended a refocus of the paper to make "the main motivation for (the) study ... to ... understand atmospheric chemistry and physics". I feel that neither this, nor the other concerns raised by Referee #2, was addressed in either the revised manuscript, or in the very brief published Authors Reply.

I know this will be a disappointment, but you will hopefully be compensated by the knowledge that the ACPD version of the paper will remain permanently accessible and citable (i.e. a publication in its own right). Furthermore many publishers would consider it to have 'pre-print' status and, therefore, would not bar it from being submitted elsewhere as an original manuscript. You may, therefore, wish to consider the referee's suggestion of submitting it to a more specialised journal.

I hope this outcome will not deter you from considering Atmospheric Chemistry and Physics for future publications.

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The above will be published as an Editor Comment alongside your ACPD article on the web site. You may send me any comments, if you wish, that can be considered for inclusion in this Editors Comment.

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 3653, 2004.

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