Feedbacks on the course “First steps in Atmospheric Modelling” arranged in Lund, Sweden 10-20 of June 2019

1. How is your overall feeling about the course – was it useful for you?

Very good! It was very nice to learn both Fortran and modelling at the same time from very good teachers.

For me the course was useful, as I have never been programming such a complex model so far.

The course was very useful to me, especially the coding experience! Learning more about aerosols and some atmospheric chemistry was a plus.

It was VERY MUCH useful for me. Everything I learned from the course help me improve my understanding of my current work.

It was very helpful to improve my capability for model application.

Overall a great course! Learned a lot although little previous experience in this field.

I am very happy with the course; it was very interesting and well structured.

2. What topics would need improvements?

Maybe more instructions on how to turn box versions into 1D.

I think we would rather finish the gas deposition than completing the aerosol box. Moreover, the description of variables derived from flux tower when being in Hyltemossa was missing. All the models are compared finally with real measurements and we were not shown eddy-covariance measurement, neither short-wave radiation or PAR sensors, even they were there on the tower and served as an input into our models (or would serve afterwards after checking the model precision).

The chemistry module and how to implement chemistry in the code could need some better structure, e.g. an example on how to structure the workflow.

No need.

Since we are mainly focus on air quality pollution research. Maybe aerosol module could be paid more attention in the future.
It could be more clearly explained how to move the chemistry module from the box model to the 1D-model.

3. **Was there any topics missing that you think should be included in the future?**

   No.

   It would be very interesting to add a topic on atmospheric transport and its influence on aerosols too.

   I think there should be a brief introduction about the main code at the beginning of the coding session.

   A technical summary might be useful for the more complete understanding.

   I think the course already covered so many topics that I don't think new ones is necessary to include. Would have been nice if there would have been time to finish the deposition module.

   It would have been interesting to include advection of aerosols and chemical compounds.

4. **What is your overall feeling about the lectures?**

   Good.

   Good! It was a good mixture of subject and levels of difficulty.

   Lectures were great, maybe there could be more scientific applications of such a model and comparisons to measured data.

   Useful, and substantial.

   Useful, and necessary.

   I really enjoyed all of them.

   The lectures covered a very broad range of topics which is good given how different background the students have.
5. **Was the course book useful and should it be continued as a hardcopy?**

Yes! It should definitely be continuing as a hardcopy. One reason why it would be bad to have it only as a pdf is that one already has a lot of windows open when coding.

We still have received some lectures via e-mail so I think the lectures with equations needed for modelling should be kept in printed form, however those not needed for modelling could be only in pdf/pptx.

The course book was very useful, and it made it easy to add my own comments and notes from the lecture for each slide.

Yes, it was useful. And, it should not be continued as a hardcopy. Because it was heavy and not so environmentally friendly.

I think it is very useful and should be continued as a hardcopy, although it's heavy and not so environmentally friendly. Because when we are coding, it's very helpful to find and check.

I think the book was handy when working with the code on my laptop.

It was very useful, and having it as a hardcopy made it easier to follow the lectures as well as writing down important notes and comments.

6. **What is your overall feeling about the coding sessions?**

Very good! It was very nice to get to code the model yourself.

As I had experience only with MatLab before, it was very hard to me to start coding from scratch. I was able to write equations, however to finish the task as implementation box model into 1-D model without any advice how to do it is impossible without knowing the programming language. From this point of view, I think it could not be assumed that one will finish the task at home by himself. Or if so, the students should not be accepted to the course if they do not have knowledge of Fortran. Nonetheless, the course was still interesting to me, as we did real coding and at least I have impression how hard it is and will be able in future to write short parts of subroutines or functions.

The coding sessions were really good! Fantastic to have many assistants at hand when issues arose.

It was quite hard at the beginning. Because it took a little bit long time to read and understand the main code. Afterwards, things became easier to go with.

Great! It was fun to really be able to sit with the code so intensively.
I really liked the coding sessions, and it was great having so many assistants there to help out.

7. **What do you think about the workload during the course?**
   *(Too little to do, too much to do or just about the right amount of work?)*

   Just about the right amount of work.
   
   Too much.
   
   The workload was just about right for me, but of course there could have been a bigger push in coding the deposition part, giving some extra evenings to spend with the code.
   
   A little bit too much to do. We have just done with the coding at the very end of the course.
   
   I think it's normal. Finally, we have done with the coding at the end of the course.
   
   For me the work load felt just about right, not being so used to programme a lot and not staying in the hotel with the rest of the group.
   
   The workload was perfect for a two-week course.

8. **How you enjoyed the social activities?**

   Yes, they were a lot of fun!
   
   They were great! Twice barbeque, Lund visit. It was nice to have breaks from coding.
   
   The social activities were great! An easy and relaxed way to get to know each other better!
   
   I enjoyed it very much.
   
   I really enjoyed them! It really enhanced the team spirit in the summer school.
   
   Yes, the social activities were very fun.

9. **Any other comments?**

   It is a great course. Please keep holding this course every year. In addition, I expect some feedbacks when we submit the task and code. And one or two lectures based on the skeleton code might be useful.