Report

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Last week I had the opportunity to attend the joint 10th Annual Meeting of the European Meteorological Society and the 8th meeting of the European Conference on Applied Climatology. My participation was partly supported by the Young Scientist Travel Award.

During the conference the presentations and the poster presentations were introduced in four large sessions:

1. European Conference on Applied Climatology
    - Monitoring for a reference climate and monitoring change
    - Understanding processes and climate change
    - Services translating science to users
    - Plenary
2. Atmosphere and the Water Cycle
3. Communication and Education
4. Numerical Weather Prediction

Working at the numerical modelling division of the meteorological service in a small country, I have interest for broad scale of the different modelling activities. Therefore, during the conference's five days I „tasted" several sessions. In the next part of my report the most interesting points of the programme are briefly summarized and I would also like to share some impressions concerning my favourite session UC2:

- In the presentations of *Dick Dee* and *Roberto Buizza* we received a thorough overview about the most important research and development activities and future plans regarding the ECMWF re-analyses (ERA-Interim, ERACLIM), model development, ensemble prediction system and the TIGGE project.

- Some information about the EURO4M project was presented by *Albert Klein Tank*. Recently a number of gridded observation datasets is available for Europe, in EURO4M the main objective is basically to create a new re-analysis database based on the available ERA40 re-analyses and the ongoing ERACLIM one, the station-based and satellite observations. The project aims to focus on the extreme parameters and provide user-oriented products.

- It was interesting to see the further works and results of the involving partners of those projects in that the Hungarian Meteorological Service also participated. In *Thomas Halenka's* and *Petr Skalak's* presentations and posters we obtained information about the joint evaluation of the regional climate models (RCMs) applied in the CECILIA project. These investigations are highly relevant for our team, since through the ensemble evaluation our RCM results are also put into broader context.

- It was interesting to recognize the newest problems in the regional climate modelling field by *Claas Teichmann's* presentation dedicated to introduce the REMO results over different CORDEX domains. (CORDEX is an internationally coordinated program to cover all the regions of the Earth with high- (at least 50 km) resolution regional climate change experiments for the IPCC AR5. The primary focus in CORDEX is on Africa.) Today, it is easy to validate a model experiment with a reliable, high-resolution gridded observational dataset over Europe, however, it is not trivial to do the same for the simulations over such observation-sparse area like Africa. Nevertheless, comparing the REMO results against re-analysis datasets, it was shown, that the model is able to reproduce the main climate characteristics of all target areas. (Although it is not a surprising results, considering the fact that the physical parameterization schemes of REMO are implemented from the ECHAM GCM.)

- In the presentation of *Heike Huebener* the main differences between the results obtained by application of the A1B medium emission scenario and E1 aggressive mitigation scenario. The "avoidable change" was quantified not only for the meteorological parameters, but also for the different vegetation types. It was concluded that the temperature increase is generally lower under the E1 scenario and the degree of this reduction is the largest (4 ^{o}C) over the Arctic. Over the Mediterranean the extension of the drying is reduced and over some regions the moistening is less pronounced. In spite of these more moderate mean changes, the cold biomes are reduced in both scenarios, however, the warm mixed and deciduous forests spread towards northern area if the anthropogenic activity follows the E1 mitigation scenario.

- The Silver Medal Lecture given by *David Burridge* was very impressive. The efficiency of his invaluable contribution to the numerical modelling was enhanced by the fact, that he was the Director of the ECMWF between 1991 and 2004. Therefore, we looked forward to hearing his presentation. His synthesizing presentation was closed a brilliant conclusion, which provoked a storm of applauses in the meeting room. He said, that similarly to the Tasmanian Devil the population of the real modellers belongs to the endangered species. His opinion was sharp that only running models is not modelling – building models is exclusively modelling. This conclusion has great importance personally for us (I mean the numerical modelling group of the Hungarian Meteorological Service), since lots of researchers use numerical models also in Hungary last few years, but only few of them are real expert of this very complex topic.

As summary, the EMS Annual Meeting was fruitful for me, I learnt new points about the meteorology in general and about regional climate modelling in particular. The Young Scientist Travel Award eases my participation in the event and it makes possible to share the new knowledge with my colleagues at the Hungarian Meteorological Service.