

## Nordic Network on Fine-scale Atmospheric Modelling (NetFAM) Progress report 2008 - draft 20.11.2008

The present progress report summarizes the main results of NetFAM during the period 1.1.2008 - 30.11.2008.

### Summary of the activities 2008

#### 1.1 Workshops arranged by NetFAM et al.

- A workshop on "Parameterization of Lakes in Numerical Weather Prediction and Climate Modelling" was held 18-20 September 2008, also in Zelenogorsk, Russia. 40 participants from 15 countries attended the school and workshop, 14 of them fully or partly funded by NetFAM, with total estimated expenses of 8000 euros (without expenses reserved for workshop publication in 2009).
- A summer school and workshop on "Integrated Modelling of Meteorological and Chemical Transport Processes / Impact of Chemical Weather on Numerical Weather Prediction and Climate Modelling", was arranged 7-15 July 2008 in Zelenogorsk, near St.Petersburg, Russia. The co-organisers were NetFAM with TEMPUS TACIS Joint European Project, COMBAT-METEO "Development of a competency-based two-level curricula in meteorology", COST Action ES0602 "Towards a European Network on Chemical Weather Forecasting and Information Systems" and COST Action ES0603 (EUPOL) "Assessment of production, release, distribution and health impact of allergenic pollen in Europe." 63 participants from 15 countries attended the school and/or workshop, 17 of them fully or partly funded by NetFAM. Total expenses for NetFAM were ca. 11000 euros.
- A miniworkshop on boundary layer parametrizations was arranged 17th of June 2008 in Helsinki at FMI, to discuss the latest developments in the topic and future applications in HIRLAM/HARMONIE. Seven presentations were discussed among the twelve participants. No extra expenses for NetFAM.

The presentations, workshop programmes and participant lists of all events were made available at NetFAM web site. In addition, a special issue of "Boreal Environment Research", based on the results of the Lake workshop, is under preparation in cooperation with the editorial board of the journal. NetFAM will cover part of the expenses of the special issue, because it will replace a printed workshop report.

#### 1.2 Workshops supported by NetFAM

The participation of NetFAM members in the following workshops was supported:

- AMS Symposium on Boundary Layers and Turbulence, Stockholm 8-12 June (one participant).

## 2. Mobility within the network 2008

During 2008, 20 persons participated in 26 exchange visits of a total length of approximately 28 weeks. The details of these visits are shown at the end of this report.

## 3. Supervision of research students 2008

During 2008, NetFAM participants defended the following PhD dissertations:

Hamza Kabelwa: "STUDY OF THE IMPACT OF PHYSIOGRAPHIC PARAMETERS ON THE QUALITY OF NWP FORECASTS FOR EAST AFRICA AS AN EXAMPLE" (monography, in Russian). RSHU, 13 November.

## 4. Main scientific achievements

A list of publications by NetFAM members in 2008 is under preparation. Work was continued in the main areas of scientific interest:

- The description, data-assimilation and parametrization of the surface and surface-related processes, in particular, modelling of the interaction between lakes and atmosphere.
- Interaction between mesoscale meteorological and chemical atmospheric models.
- The usage of micrometeorological and remote-sensing observations for data assimilation and validation of mesoscale atmospheric models.
- Development of a new mesoscale atmospheric modelling framework HARMONIE (*HIRLAM and ALADIN Research for Mesoscale Operational NWP In Europe*).

NetFAM activities were presented in a short popular overview in the NordForsk publication "Nordic research gems", 2008, among 19 other Nordic networks.

## 5. Communication within NetFAM

The central platform in the communication remained the NetFAM web site <http://netfam.fmi.fi> . The site was regularly updated by adding presentations of workshops arranged and supported by NetFAM in 2008 as well as keeping the "news" section up-to-date. The NetFAM site is open for users within and outside of the network.

## **A list of NetFAM exchange visits and supported participants in workshops during 2008**

### Exchange visits and working weeks

Katerina Kourzeneva RSHU FMI 9-18.1.2008 Lake modelling  
Gantuya Ganbat RSHU FMI 9-18.1.2008 Lake modelling  
Andrea Storto met.no SMHI 20-23.1.2008 HARMONIE working week data assimilation  
Roger Randriamampianina met.no SMHI 20-23.1.2008 HARMONIE working week data assimilation  
Katerina Kourzeneva RSHU FMI 24-27.2.2008 Lake modelling  
Patrick Samuelsson SMHI FMI 25-27.2.2008 Lake modelling  
Laura Rontu FMI RSHU 19-23.2.2008 Radiation and turbulence parametrizations  
Jevgeni Atlaskin RSHU FMI 3.-20.3.2008 Stable boundary layer parametrizations  
Iakov Gontsov RSHU DMI 6-13.4.2008 Enviro-HIRLAM  
Yulia Gavrilova RSHU DMI 6-13.4.2008 Enviro-HIRLAM  
Polina Zimenko RSHU DMI 6-13.4.2008 Enviro-HIRLAM  
Irina Petrova RSHU DMI 6-13.4.2008 Enviro-HIRLAM  
Sergei Smyshljajev RSHU DMI 6-10.4.2008 Enviro-HIRLAM  
Gantuya Ganbat RSHU FMI 7-9.3.,19-20.3.2008 Lake modelling  
Martynas Kazlauskas LHMS FMI 4-8.5.2008 Fine-scale HIRLAM in LHMS  
Jevgeni Atlaskin RSHU MISU,FMI 8-18.6.2008 Boundary layer, AMS conference  
Kirsti Salonen FMI met.no 4.5.-9.5.2007 4DVAR data assimilation working week  
Reima Eresmaa FMI met.no 4.5.-9.5.2008 4DVAR data assimilation working week  
Hamza A. Kabelwa RSHU FMI 2.-13.6.2008 HIRLAM - ECOCLIMAP  
Laura Rontu FMI RSHU 21.-25.9.2008 HIRLAM - HARMONIE radiation, lakes  
Sami Niemelä FMI DMI 29.9.-3.10.2008 HARMONIE system working week  
Niko Sokka FMI DMI 29.9.-3.10.2008 HARMONIE system working week  
Sami Niemelä FMI France 27.-31.10.2008 HARMONIE system  
Karl-Ivar Ivarsson SMHI FMI 22.-25.10.2008 HIRLAM surface parametrizations  
Stefan Gollvik SMHI FMI 22.-25.10.2008 HIRLAM surface parametrizations  
Laura Rontu FMI RSHU 10.-19.11.2008 HIRLAM - HARMONIE radiation, lakes, surface

### Summer school and workshops

"Parameterization of Lakes in Numerical Weather Prediction and Climate Modelling"

18-20 September 2008, Zelenogorsk. Supported lecturers and participants:

Dmitri Mironov, Kalle Eerola, Laura Rontu, Patrick Le Moigne, Nils Gustafsson, Tatiana Lvova, Arkady Terzhevik, Rui Salgado, Patrick Samuelsson, Roman Begenar, Alexander Gusi, Katerina Kourzeneva, Gianpaolo Balsamo, Miklos Vörös.

"Integrated Modelling of Meteorological and Chemical Transport Processes / Impact of Chemical Weather on Numerical Weather Prediction and Climate Modelling"

7-15 July 2008, Zelenogorsk Supported lecturers and participants:

Alexandr Mahura, Niels Nielsen, Bent Sass, Bennert Machenhauer, Andres Luhamaa, Joakim Nielsen, Allan Christensen, Brian Sorensen, Mirjam Paales, Adomas Mazeikis, Marko Zirk, Rein Rõõm, Suleiman Mostamandy, Gantuya Ganbat, Olga Patina, Ayoe Buus, Andy Delcloo.