

# Summary Report

## Enviro-HIRLAM

### Research Training

(27 Apr - 1 May 2009)



Young scientists – Yakov Gontsov, Yulia Gavrilova, Irina Petrova, and Alexander Smirnov -- had attend a short practical research training on the research and development topics on the Enviro-HIRLAM (Environment - High Resolution Limited Area Model) in the Research Department of the Danish Meteorological Institute (RD DMI). The item of this visit was a joint work/ research/ discussions/ consulting/ co-advising/ etc. of young researches.

The DMI scientists --- Alexander Baklanov, Ulrik S. Korsholm, Alexander Mahura, Kristian P. Nielsen, Roman Nuterman, and Bent H. Sass --- were involved into discussions on related research themes and technical aspects for the Enviro-HIRLAM. The relevant research topics included discussions on a new aerosol dynamics module, integration with non-hydrostatic kernel, cloud microphysics, aerosol feedbacks, urban planning and effects on urban climate and pollution, parameterization effects on atmospheric chemical transport modelling, urban planning optimization, validation study for breeze and urban effects, climate change effects on air pollution and meteorology, effects of chemical composition, boundary layer parameterizations.

4 young researches/ students attended the training week are:

Yakov Gontsov <gontsov@rshu.ru> -- aerosol feedbacks;

Yulia Gavrilova <gavrilova@rshu.ru> -- urban effects;

Irina Petrova <IrinaYPetrova@yandex.ru> -- air pollution, source regions;

Alexander Smirnov <axline@mail.ru> -- databases;

from Russian State Hydrometeorological University (RSHU, St.Petersburg, Russia)

from research team of Prof. Sergey Smyshlyaev RSHU <smyshl@rshu.ru>:

As outcome several abstracts of presentations were submitted -- for the European Meteorological Society (EMS-2009) Annual Meeting in Toulouse, France (Oct 2009) and International Conference on Computational Information Technologies for Environmental Sciences (CITES-2009), Krasnoyarsk, Russia (Jul 2009).

--> POSTERS PRESENTED AT THE CORRESPONDING CONFERENCES.

Yulia Gavrilova and Yakov Gontsov will defend their research theses in June 2009, both representing active involvement and research results already obtained within the Enviro-HIRLAM research and development topics. They both will enroll the PhD programmes in the RSHU during this up-coming Fal 2009, and it is expected that they will continue their research on the Enviro-HIRLAM related topics as well.

--> BOTH STUDENTS DEFENDED THEIR MSC THESES (JUN 2009) AND BOTH HAVE PASSED EXAMS AND ENROLLED THE PHD PROGRAMMES IN RSHU (OCT 2009).

Two other students -- Irina Petrova and Alexander Smirnov -- are still in the progress of doing research (i.e. not yet defended their theses during this year).

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NetFAM (<http://netfam.fmi.fi>) and MEGAPOLI (<http://megapoli.dmi.dk>).