

# 1. Information Letter

## **MUSCATEN Summer School on “Integrated Modelling of Meteorological and Chemical Transport Processes / Impact of Chemical Weather on Numerical Weather Prediction and Climate Modelling”**

**Odessa, Ukraine, 3-9 July 2011**

### Introduction

The [MUSCATEN](http://muscaten.ut.ee) (Towards Multi-Scale Modelling of the Atmospheric Environment; <http://muscaten.ut.ee>) networking project announces the 2nd young scientist summer school (YSSS) on topics of integrated modelling of meteorological and chemical transport processes to understand the impact of chemical weather on numerical weather prediction and climate modelling.

The aim of this event is to join young scientists and researchers from the numerical weather prediction and air quality communities, University/ Academia system in order to elaborate, outline, discuss and make recommendations on the best strategy and practice for further research, developments and applications of the integrated modelling of both meteorological and chemical transport processes into the numerical weather prediction modelling systems, and in particular, the Enviro-HIRLAM/ HARMONIE modelling system. The main emphasis is on multi-scale models applied for chemical weather forecasting and feedback mechanisms between meteorological and atmospheric pollution processes.

The school is arranged in the framework of cooperation with the [HIRLAM](http://hirlam.org) consortia (<http://hirlam.org>) (on research and development of the Environment - High Resolution Limited Area Model, Enviro-HIRLAM); [COST Action ES1004](http://www.eurometchem.org) – “EuMetChem: European framework for online integrated air quality and meteorology modelling”, [FP7 EU MEGAPOLI](http://www.megapoli.info) – “Megacities: Emissions, urban, regional and Global Atmospheric POLLution and climate effects, and Integrated tools for assessment and mitigation” (<http://megapoli.info>); [CEEH](http://www.ceeh.dk) - Danish Centre for Energy, Environment and Health (<http://ceeh.dk>); [OSEU](http://www.odeku.edu.ua) - Odessa State Environmental University (<http://www.odeku.edu.ua>); EU TEMPUS project [QualiMet](http://www.qualimet.net) “Development of Qualification Framework in Meteorology” (<http://qualimet.net>); and [FP7 EU PBL-PMES](http://www.pbl-pmes.fmi.fi) “Atmospheric Planetary Boundary Layers: Physics, Modelling and Role in Earth System” (<http://pbl-pmes.fmi.fi>).

The school will take place in the city of Odessa (Ukraine) at the premises of the Odessa State Environmental University ([OSEU](http://www.odeku.edu.ua)) from 3 till 9 July 2011. *The local organizer and host* is the OSEU (<http://www.odeku.edu.ua>).

Organizers of the summer school welcome all interested participants from countries and associated members of the [HIRLAM](http://www.hirlam.org) consortia (<http://www.hirlam.org>) and University/ Academia system of any country.

### **Young Scientist Summer School, YSSS-2011 (3-9 July 2011)**

During the summer school the main lecture topics will include general introduction to aspects of meteorological modelling (numerical weather prediction (NWP), parameterizations and physics, numerics, advection, land-use, radiation, clouds, aerosols, urbanization); off-line vs. on-line atmospheric chemical transport (ACT) modelling; possible feedbacks, direct and indirect effects, and their impact from ACT on short- and long-term/-range atmospheric circulation models; etc.

Soon, details about the YSSS-2011 school programme (i.e. list of scheduled lectures and topics of practical exercises) will become available at the [MUSCATEN](http://muscaten.ut.ee) website (<http://muscaten.ut.ee>). You

may also see materials/ examples from the 1st YSSS-2008 summer school (Jul 2008; Zelenogorsk, Russia) at <http://netfam.fmi.fi/YSSS08> organized by the Nordic Network on Fine-scale Atmospheric Modelling, [NetFAM \(http://netfam.fmi.fi\)](http://netfam.fmi.fi).

The summer school will start on Sunday, 3 Jul 2008 and last during a week. The school includes lectures (from 9.00 till 15.00) and practical exercises (from 15.00 till 18.00+) as small scale research projects continuing during the full week. The exercises will be arranged within groups/ teams of students (3-5 persons).

At the last day of the school (Saturday, 9 Jul 2011) students will jointly present results of the completed research projects to audience/ colleagues. The YSSS diploma will be officially issued to all students whom have attended the full programme/ lectures of the school, completed practical exercises and successfully defended their short-term research projects.

On Saturday 2 Jul 2011, arrived YSSS participants (students and lectors) will be accommodated by the host/ OSEU.

Meals (breakfast, lunch and dinner) and coffee/ tea (twice a day) breaks will be served daily starting from Sunday, 3 Jul 2011 till Saturday, 9 Jul 2011.

The Ice-Breaking Party is planned on evening of Sunday, 3 Jul 2011.

The Poster Presentations (showing recently completed or on-going research/ thesis at home institution) will be given by students during special 2 hour poster session (note, all posters should be displayed from the 1st day of the school) on Monday, 4 Jul 2011,

The Odessa city excursion (in evening time) will be arranged for the YSSS participants on Tuesday, 5 Jul 2011.

The Official Final Dinner is planned on evening of Friday, 8 Jul 2011.

The departure days are Saturday, 9 Jul 2011 (starting 2nd part of the day) and Sunday, 10 Jul 2011.

## Participation and Deadlines

In order to participate in the YSSS-2011 School, please, download and fill out the [summer school application form](#) (including motivation letter, CV/ resume, and list of recent presentations/ publications) and send as attachment files by e-mail to Alexander Mahura, DMI ([ama@dmi.dk](mailto:ama@dmi.dk)) till deadline: **31 March 2011**. Note, all received applications from candidates will be evaluated after deadline by the responsible organizers (DMI and OSEU representatives) of the school and all accepted participants will be informed by e-mail in the beginning of April 2011.

There is ***no registration fee*** for the summer school.

The working language of the summer school is ***English***.

Information about visa requirements will be distributed by the ***OSEU Department of International Relations*** for only approved participants of the school.

Note, the limited support for travel expenses (including travel, accommodation, and meals) is available for the MUSCATEN Baltic and Nordic countries participants (see [MUSCATEN](#) web-site for the list of institutions from these countries).

## Organizers

***International organizing committee:***

Alexander Baklanov (Chairman) and Alexander Mahura (Danish Meteorological Institute, [DMI](http://www.dmi.dk) – <http://www.dmi.dk>);

Sergey Stepanenko (Co-chairman), Sergey Ivanov, and Julia Palamarchuk (Odessa State Environmental University, [OSEU](http://www.odeku.edu.ua) - <http://www.odeku.edu.ua>);

Rein Room and Marko Kaasik (University of Tartu; [MUSCATEN](http://muscaten.ut.ee) - <http://muscaten.ut.ee>);

Sergej Zilitinkevich (University of Helsinki, [UH](http://www.helsinki.fi/university) - <http://www.helsinki.fi/university>);

Michael Gauss (Norwegian Meteorological Institute, [Met.no](http://met.no) - <http://met.no>);

Sergey Smyshlyaev and Eduard Podgaiskiy (Russian State Hydrometeorological University, [RSHU](http://www.rshu.ru) – <http://www.rshu.ru>);

Andrey Belotserkovskiy (Tver State University, [TSU](http://university.tversu.ru) – <http://university.tversu.ru>);

Eigil Kaas (University of Copenhagen, [UoC](http://www.gfy.ku.dk) - <http://www.gfy.ku.dk>);

Laura Rontu (Finnish Meteorological Institute, [FMI](http://www.fmi.fi) – <http://www.fmi.fi>);

Jeanette Onvlee and Sander Tjim (Koninklijk Nederlands Meteorologisch Instituut, [KNMI](http://www.knmi.nl) - <http://www.knmi.nl>).

***Host/ OSEU local organizing committee:***

Sergey Stepanenko (rector at [ogmi.farlep.odessa.ua](mailto:ogmi.farlep.odessa.ua)) - OSEU Local Committee Chairman

Sergey Ivanov ([svvivo at te.net.ua](mailto:svvivo@te.net.ua)) - School organizer from OSEU

Julia Palamarchuk ([j\\_pal at ukr.net](mailto:j_pal@ukr.net)) - Assistant to school organizer (school programme, practical exercises and lectures)

Inna Khomenko ([innchom at mail.ru](mailto:innchom@mail.ru)) - Assistant to school organizer (school programme, poster session and publications)

Oleg Shabliy ([oleg.shabliy at gmail.com](mailto:oleg.shabliy@gmail.com)) - Visa, invitation and travel information (contact with the OSEU International Relations Office)

Maria Krachkovskaya ([social at ogmi.farlep.odessa.ua](mailto:social@ogmi.farlep.odessa.ua)) - Accommodation information