

International research training course to take place at UTMN

In English – <https://www.utmn.ru/en/media/news/research-and-innovations/693416/>

In Russian – <https://www.utmn.ru/presse/novosti/obrazovanie/694455/>

Research and Innovations

The University of Helsinki (UHEL), the Institute for Atmospheric and Earth System Research (INAR), the Finnish Meteorological Institute (FMI), and the University of Tyumen (UTMN) are jointly organizing the research training course “Seamless / Online Integrated Meteorology-Chemistry-Aerosols Multi-Scale and – Processes Modelling”.



As the integral part of the Academy of Finland **ClimEco (Mechanisms, pathways and patchiness of the Arctic ecosystem responses and adaptation to changing climate)** research project in order:

- to strengthen the collaboration between Finnish and Russian key investigators and corresponding institutes in the frameworks of the project and PEEEX;
- to make a detailed design enabling a longer-term, a top-level research activities in PEEEX;
- to build direct links and to establish student training and short-term exchange between the institutes - the research training week/ course for the University of Tyumen (UTMN) students on seamless/ online integrated meteorology-chemistry-aerosols multi-scale modelling for environmental applications and assessment studies with the Enviro-HIRLAM (Environment - HIGH Resolution Limited Area Model) modelling system (e.g. lecturing and realization of the Small-Scale Research Projects, SSRPs as practical exercises) is to be organized according to the ClimEco plans.

Specific Objectives:

Main items of SSRP includes: Introduction with background discussions; Analysis of meteorological situations; Learning practical technical aspects on modelling; Performing model simulations; Visualization of results; Evaluation of possible impact on temporal-spatial variability of simulated meteorological and chemical fields; Team presentation on results and findings.

Dates and Venue:

24-29 June 2019, at premises of the University of Tyumen.

Enviro-HIRLAM Model Research Training/Course Content:

- Lecturing with respect to the theoretical and practical aspects of the Enviro-HIRLAM modelling system (with focus on research and development);
- Introduction into the exercise, SSRPs (with background discussions);
- Analysis of meteorological situations for selected cases/ dates;
- Technical aspects of Enviro-HIRLAM modelling and modules implementation;
- Enviro-HIRLAM model runs for selected dates/cases;
- Visualization of model output/ results;
- Analysis of impact on meteorology and atmospheric composition;
- Oral presentation of SSRP results.

Training Format:

Lecturing, modelling, visualization and data analysis, discussions, work under supervision, independent work, synergy of results, students' presentations, etc.

Language:

English – lecturing and SSRPs materials; discussions – possible in Russian

Targeted Trainees and Admission:

Advanced level BSc, and MSc, PhD students and PostDocs of the UTMN

Training Expenses:

There is no fee for students for research training/ course

Grading:

Participants of the training, whom will attend all lecturing events, practically realize the exercise SSRPs and successfully defend the results and findings obtained, will be awarded the certificates.

Materials:

- [Lecturing content for the research training week](#);
- [Enviro-HIRLAM model brief description](#) (see also <https://doi.org/10.5194/gmd-10-2971-2017>);
- [SSRP - Exercise Booklet](#);
- [Introduction to Enviro-HIRLAM Exercises](#);
- [Info-Poster on Enviro-HIRLAM exercises during Young Scientist Summer School](#) (YSSS-2014).

Interested to participate, please, send e-mail (and provide your contact information and your Motivation Letter /max 1 page/) to local organizers at UTMN - Dr. Dmitriy Gabyshev (d.n.gabyshev@utmn.ru) & Alexander Mahura (alexander.mahura@helsinki.fi) - **until 15 May 2019**