

# Multi-Scales and -Processes Modelling and Assessment for Environmental Applications Research Training Intensive Course

Russian State Hydrometeorological University  
St.Petersburg, Russia  
20-25 April 2020



*St Isaac's Cathedral and the Moika river. Photo by: Roman Evgenev*

## ANNOUNCEMENT

### PEEX-AC: Pan-Eurasian Experiment – Academic Challenge



#### Aim

This Research Training Intensive Course will introduce young generation of researchers to special topics in atmospheric & environmental sciences, Earth system modelling approaches and applications. During the intensive course, participants will learn about the current progress and challenges in multi-scales & –processes modelling for Earth system research; meteorological/climate and atmospheric composition modelling and models evaluation. The programme will consist of theoretical lectures & practical exercises (to be accomplished by students as small-scale research projects ending with presentation of the project results).

# Intensive Course Programme

## • Lecturing

on aspects of modeling (numerical weather prediction, Earth system, climate, ensemble, atmospheric chemical transport, online integrated, processed-based; numerical schemes, physiographical data) and specific challenges; atmospheric boundary layer and dispersion and removal processes; atmospheric gas- and liquid-phase chemistry; aerosols properties, chemistry and microphysics; aerosols – cloud –radiation interactions; chemical and meteorological data assimilation; evaluation of models and verification.

## & Practical Exercises as Small-Scale Research Projects (SSRP)

on selected research topics to be accomplished by groups of students led by teachers

*EC-Earth* – Risto Makkonen

*Enviro-HIRLAM* – Alexander Mahura

*MALTE-Box* – Michael Boy

## Organizing Committee

Sergey Smyshlyaev, Yana Drobzheva, Maria Krasnyakova, Anna Fokicheva,  
Eduard Podgaiskii, Alexander Pogoreltsev

*Russian State Hydrometeorological University, Russia*

Markku Kulmala, Tuukka Petäjä, Hanna Lappalainen, Katja Lauri, Alexander Mahura

*Institute for Atmospheric and Earth System Research, University of Helsinki, Finland*

## Local Organizers (secretariat)

Yana Drobzheva, Maria Krasnyakova, Eduard Podgaiskii

## Organizers

Pan-Eurasian Experiment (PEEX), PEEX Academic Challenge (PEEX-AC)

EU Horizon-2020 iCUPE & INTAROS projects

Russian State Hydrometeorological University (RSHU) & University of Helsinki (UH)

Institute for Atmospheric and Earth System Research (INAR)

(Intensive course is funded by the Finnish National Agency for Education, Finland)

## Target audience

Young Researchers (advanced BSc, MSc, PhDs, Post Docs)

## Selection criteria

Based on motivation letter, other skills (e.g. programming, etc.), CV & publication list

**Registration deadline** 15 December 2019

**Language** English

**Costs** no fee

Please, send your application package (*i.e. motivation letter, CV & publication list*)

to: [m.krasnyakova@rshu.ru](mailto:m.krasnyakova@rshu.ru) & [alexander.mahura@helsinki.fi](mailto:alexander.mahura@helsinki.fi)