Level: PhD

Course title: Modelling of air pollution and chemical transport

Status: elective

ECTS: 15

Requirements: M.Sc. degree

Learning objectives

Introductory to modelling chemical processes and processes that are important for transport within atmosphere. Getting knowledge in using and modifying numerical models for air quality estimation and assessment.

Learning outcomes

After the course, students should have developed knowledge in fundamental processes and equations of those processes in the atmosphere, basic principles of parameterization and their application. Besides, student should have ability to use technical literature and to write scientific material and capacity to modify and tune chemical transport models, and use them in practice.

Syllabus

Introduction. Ozone layer. Degradation of stratospheric ozone layer. Source and sink of atmospheric pollutants. Transport processes of passive pollutants. Basic numerical methods in modelling air pollution transport. Parameterization of mixing processes within planetary boundary layer. Models for air quality control. Chemical transport models.

Weekly teaching load				Other:
Lectures: 6	Exercises:	Other forms of teaching:	Student research: 4	