



## **E-learning courses on basic principles of meteorology**

T. Halenka (1), E. Holtanova (1), S. Kliegrova (2), and M. Belda (1)

(1) Charles University in Prague, Fac. of Math. & Physics, Dept. of Meteorology and Environment Protection, Czech Republic, tomas.halenka@mff.cuni.cz, (2) Czech Hydrometeorological Institute, Hradec Kralove, Czech Republic

E-learning courses represent new way of teaching different subjects and provide a very useful and attractive tool for education on a broad scope of levels. The main advantages are the possibility of individual time table for every student, access to courses at any time and from any location with the internet connection. The courses can be interactive, the students may contribute to forums and communicate with lecturers. It is possible to provide students with attractive education materials, such as animations, videos etc., as well as interactive tools like quizzes, exercises etc. On the contrary to printed materials, it is also very easy to update information included and modify the courses.

We are preparing e-learning courses on basic principles of meteorology and climatology within the Czech Meteorological Society. After quite successful attempt to create climate change oriented e-learning course within a project with participation of the Czech Hydrometeorological Institute presented at previous edu-sessions of EMS it was decided to continue the activity within the Czech Meteorological Society. While in the former course only limited manpower from the Czech Meteorological Institute was available to create the scientific content, we suppose that when coordinated at Czech Meteorological Society there will be enough resources to distribute the work among more contributors and thus despite of the individual limitations we will be able to get broader coverage and high quality of individual contributions from all the branches of meteorology and climatology with full guarantee of the correctness of the content. After the discussion within the Society we agreed upon to start with the general courses on meteorology and climatology with priority given to module dealing with the introduction to meteorology. The content of this meteorological part should contain parts dealing with the origin and development of the atmosphere, its composition, radiation in the atmosphere, energy balance at the Earth's surface, air temperature, basic thermodynamics of the atmosphere, evaporation, air humidity, vertical structure of the air temperature and stability of the atmosphere, precipitation, atmospheric circulation, and dynamics of the atmosphere. Other more detailed modules covering individual topics more in depth will follow under the involvement of more experts from the field.