**Andras HORANYI defended his thesis**

## "Sensitivity studies of frontal waves using the adjoint method"

**in Budapest in November 1996.**

The thesis is dealing with the study of the dynamics of frontal waves using the adjoint method.

The dynamics of the frontal waves are explained in the first chapter.

The second chapter is dealing with the applied models i.e. the ARPEGE/ALADIN model and its tangent linear and adjoint versions.

Chapter 3 recalls the basic principles of sensitivity studies using the adjoint models, i.e. how sensitivities of a given characteristic of the frontal waves with respect to initial conditions can be calculated with the integration of the non-linear and adjoint models.

The last chapter describes the experiments performed (including the description of the idealized frontal waves used for the experiments) and the obtained results with the relevant conclusions.

The thesis is in Hungarian, therefore in case of interest it is recommended to read the reference (Horanyi A. and A. Joly, 1996: Some aspects of the sensitivity of idealized frontal waves. Contributions to Atmospheric Physics (Beitrage zur Physik der Atmosphere), Vol. 69., No. 4. 517-533) or contact directly the author (*horanyi++at++met.hu*).