# DEZSŐ DÉVÉNYI 1948-2009

Who Dezső was, what he meant to us..



Teacher,
supervisor,
mentor,
colleague
and a friend

Dezső in Reading in November, 2009 Are we in a library?... What is he reading so passionately?

#### The start

- Graduated from Eötvös Lóránd Univ. in 1973 as a teacher of mathematics and physics and as a meteorologist
  - Master thesis: Objective analysis of meteorological fields
- 1975-76, Leningrad: "Stochastic simulation of meteorological fields using Monte Carlo method": post-graduate study under the supervision of Lev Gandin. In more general: 4D data assimilation.. Purpose: "candidature" (the equivalent of PhD)
- Dezső's bad luck: Gandin became persona non grata ("refusenik")

# Dezső the young man









Dezső and Patricia in Hévíz

Dezső and his brother Laci

### Initial years at HMS

- 1976-79: scientist at NWP section
- 1979-84: scientific secretary
- 1985-88: head of NWP group at Central Institute for Weather Forecasting (I joined this group in 86)
- 1988-91 head of weather forecasting division (NWP group included)

#### Initial years at HMS





Mid 80-ies North Korea as a WMO expert

Síkfőkút, conference on use of mathematical statistics in meteorology



On a mission in Kazakhstan With our forecasters

#### Dezső as head of NWP

- He formed a group of young meteorologists, supervised and trained them on NWP
  - Purpose was to develop or adapt an up-to-date NWP system (a new computer centre was built with a relatively strong mainframe)
- 1988- Adaptation SMHI LAM system
  - Dezső visited SMHI and brought home the code
  - It became operational at HMS in 1991
- 1990: Dezső represented HMS at the kick-off of the NWP cooperation initiated by Meteo-France (later called ALADIN)
- 1991: Initiation of ECMWF "cooperative state" membership (Dezső played a crucial role)

#### ALADIN kick-off



1991, start of LAM cooperation between Meteo-France and Eastern Europe: Dezső with JFG, Radmila and Vlad in Paris

#### Our first visit to Reading, IUGG-1989



IUGG conference at Reading University, also visit to ECMWF Milestone in Dezső's future life: met for the first time his future Boulder colleagues and friends Stan Benjamin and Tom Schlatter!!!

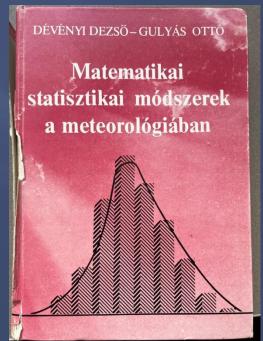
# Dezső as a teacher and supervisor

 1982-1991: Dezső gave lectures for meteorology students on NWP (numerical methods, stability issues, Galerkin methods, NWP models, optimal interpolation...)

He was supervisor for numerous master and PhD

theses

 He was co-author of a mathematical statistics for meteorologists textbook



#### Dezső's candidate (PhD)work

Dezső got his title in 1991:

Application of satellite data in the objective analysis of meteorological fields

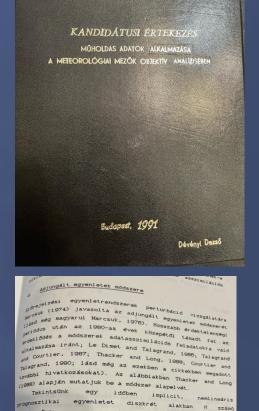
Points out the poor accuracy of T,q profiles retrieved from satellite measurements compared to model background fields;

Introduces his two-step algorithm to filter and interpolate observational data (conventional and satellite);

Summarizes promising new methods (nonlinear optimal

interpolation, kalman filter and variational methods):

they can account for nonlinearities in radiative transfer model, so radiances can be directly assimilated



 $\underline{\mathbf{E}}_{n}\left[\underline{\mathbf{x}}_{n}, \underline{\mathbf{x}}_{n-1}, \underline{\mathbf{f}}_{n}\right] = 0, \quad n=1,...,N.$ 

tt k<sub>n</sub> jelenti a modell állapotot az n-edik időpontban és <u>f</u> elel meg a [t<sub>n-i</sub>, t<sub>n</sub>] időintervallumbeli modellbel

szteségfüggvényt, ahol a. jelöli az állapotra vonatko:

<del>figyeléseket</del>; a<sub>k</sub> és b<sub>k</sub> a megfelelő <u>modell</u> változók; <u>A</u>, a súlyozást szolgáló mátrixok. A (2.22) feltételek és

a kényszerre

- 1991-93 First visit to Boulder, NOAA FSL:
  - Developed RUC Optimal interpolation in isentropic coordinates



Dezső, Stan, Tom and myself HMS headquarters, 1991, August



- Stan Benjamin: "Dezső was the best data assimilation scientist in RUC/Rapid refresh group at NOAA FSL"
- 1993: Dezső came back to HMS: Vice President of HMS, 94-95
- 1995-1998: back to Boulder
- 1999: Back to Budapest, prof at ELTE
- 2000-: Boulder again...







Dezső with Vissy Gyuri, Takács Ági, Stan and:

Peter Mandics and Major Gyurka, the two, who initiated the fruitful cooperation



Visegrád with Stan, Dezső's family, István, myself Boulder and the Rockies, Laci, Gizi, Jeff, Iván and Dezső's family

- Dezső's main achievements in Boulder (recap from Stan's talk):
  - Introduction of 3DVAR to NOAA hres short-range models
  - Application of the community GSI statistical interpolation to regional RAP
  - Development of ens-based closure scheme for deep convection parametrization (Grell-Devenyi, 2002)

## Dezső in Reading

Visited several times, last time in November,
 2009

action of California

1, Nov 2009 Birmingham City-Manchester City 0:0



Our favourite pub in Reading, The George with Ervin, István and myself

#### We remember Dezső



