

## Information and documentation about applications of the ECMWF's model in Hungary

### Articles in refereed journals

**Szintai, B. and Ihász, I.**, 2006: The dynamical downscaling of ECMWF EPS products with the ALADIN mesoscale limited area model: preliminary evaluation. *Időjárás* **110**, 229-252. [[PDF](#)]

**Ihász, I., Üveges, Z., Mile, M. and Németh, Cs.**, 2010: Ensemble calibration of ECMWF's medium-range forecasts *Időjárás* **114**, 275-286. [[PDF](#)]

**Gaál, N. and Ihász, I.**, 2015: Evaluation of the cold drops based on ERA-Interim reanalysis and ECMWF ensemble model forecasts over Europe, *Időjárás*, 119, 111-126. [[PDF](#)]

**Lázár, D. and Ihász, I.**, 2016: Potential benefit of the ensemble forecasts in case of heavy convective weather situations. *Időjárás*, 120, 383-394. [[PDF](#)]

**Ihász, I., Mátrai, A., Szintai, B., Szűcs, M., Bonta, I.**, 2018: Application of European numerical weather prediction models for hydrological purposes. *Időjárás*, 122, 59-79. [[PDF](#)] DOI:10.28974/idojaras.2018.1.5.

**Tóth B. and Ihász, I.**, 2021: Validation of subgrid scale ensemble precipitation forecasts based on ECMWF's ecPoint Rainfall project. *Időjárás*, 125, 397-418. [[PDF](#)] DOI:10.28974/idojaras.2021.3.2.

### Articles in ECMWF Newsletters

**Ihász, I. and Tajti, D.**: 2011: Use of ECMWF's ensemble vertical profiles at the Hungarian Meteorological Service *ECMWF Newsletter* **129**, 20-24. [[PDF](#)]

**Gaál, N. and Ihász, I.**, 2014: Predictability of the cold drops based on ECMWF's forecasts over Europe. *ECMWF Newsletter*, 140, 26-30. [[PDF](#)]

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**Balázs, Z. K. and Ihász, I.**, 2018: Rapidly developing cyclones in ECMWF reanalyses. *ECMWF Newsletter* 154, 11-12. [[PDF](#)]

### Articles in proceedings of the conferences

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**Ihász, I.**, 2003a: Experiments of clustering for central European area especially in extreme weather situations, *Proceedings of 9th Workshop on Meteorological Operational Systems*. ECMWF Reading UK, 10-14 November 2003, 112-116. [\[PDF\]](#)

**Ihász, I.**, 2003b: Operational medium-range weather forecastings in the ECMWF (in Hungarian). *29th Scientific Days of Meteorology*, Budapest MTA, 20-21 November 2003, 119-128. [\[PDF\]](#)

**Ihász, I., Hágel, E. and Szintai, B.**, 2005: Severe weather warnings at the Hungarian Meteorological Service: Developments and progress: *Proceedings of the Tenth ECMWF Workshop on Meteorological Operational Systems*, Reading UK, 14-18 November 2005. 127-133., [\[PDF\]](#)

**Ihász, I.**, 2007: Experiences using VarEPS products at the Hungarian Meteorological Service: *Proceedings of the Eleventh ECMWF Workshop on Meteorological Operational Systems*, Reading UK, 14-18 November 2007, 130-135. [\[PDF\]](#)

**Ihász, I. and Máté, M.**, 2008: Calibration of ECMWF ensemble precipitation forecasts for hydrological purposes at the Hungarian Meteorological Service. *Proceedings of the XIV Conference of the Danubian Countries. 2-4 June 2008*, Bled, Slovenia (CD) [\[PDF\]](#)

**Ihász, I.**, 2008: Model products and possible applications of medium and long range weather forecastings (in Hungarian). *34th Scientific Days Of Meteorology*. Hungarian Scientific Academy. 20-21 November 2008 [\[PDF\]](#)

**Ihász, I., Mile, M. and Üveges, Z.**, 2009: Comprehensive study of the calibrated ensemble forecasts. *Proceedings of the Twelfth ECMWF Workshop on Meteorological Operational Systems*, Reading, United Kingdom, 2-6 November 2009, 59-63. [\[PDF\]](#)

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**Ihász I.**, 2014: Researchs and developments on ensemble medium-range weather forecasts (in Hungarian). *ELTE Meteorological Summer School*, Szigliget, 26-28 August 2014, *Egyetemi Meteorológiai Füzetek*, 25, 32-37. [PDF]

**Ihász I.**, 2016: Predictability of the weather beyond one week (in Hungarian). *Természet Világa*, 1. 21-24. [PDF]

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24 June 2019

### Project of the National Research and Development Fund

Estimation of the risk and economic planning by using ensemble weather forecasting „Applications of probability forecasts” NKFP 3A/051/2004 project leaders: **Károly Vissy** and **Sándor Kertész**

### BSc and MSc theses

**Hágel, Edit**, 2003: Early detection of the extreme weather situations by using Extreme Forecast Index. Budapest, Eötvös Loránd University. Master thesis (supervisor: István Ihász)

**Osváth, Szabolcs**, 2004: Investigation of the ensemble clustering focusing on Carpathian basin. Budapest, Eötvös Loránd University. Master thesis (supervisor: István Ihász)

**Szintai, Balázs**, 2006: Short-range ensemble forecasting made by ALADIN model. Budapest, Eötvös Loránd University. Master thesis (supervisor: István Ihász) [PDF]

**Mile, Máté**, 2008: Calibration of the ECMWF’s ensemble forecasts. Budapest, Eötvös Loránd University. Master thesis (supervisor: István Ihász) [PDF]

**Üveges, Zoltán**, 2009: Calibration of ECMWF’s monthly ensemble forecasts. Budapest, Eötvös Loránd University. Master thesis (supervisor: István Ihász) [PDF]

**Tajti, Dávid**, 2009: Comprehensive verification of the ECMWF’s deterministic and probability forecasts. Budapest, Eötvös Loránd University. BSc thesis (supervisor: István Ihász) [PDF]

**Németh, Csilla**, 2010: Verification of the ECMWF’s calibrated probability forecasts. Budapest, Eötvös Loránd University. BSc thesis (supervisor: István Ihász) [PDF]

**Lázár, Dóra**, 2011: Verification of the decadal and monthly EPS plumes based on ECMWF's ensemble forecasts. Budapest, Eötvös Loránd University. BSc thesis (supervisor: István Ihász) [[PDF](#)]

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**Gaál, Nikolett**, 2014: Dynamical and synoptical study of the cold drops based on ERA-Interim reanalysis and ECMWF ensemble model forecastse előrejelzések alapján. Budapest, Master thesis (supervisor: István Ihász) [[PDF](#)]

**Mátrai, Amarilla**, 2015: Predictability of the precipitation based on ensemble forecasts over catchments of river Danube and Tisza. Budapest, Master thesis (supervisor: István Ihász) [[PDF](#)]

**Balázs, Zita Krisztina**, 2017: Comparison of ECMWF ERA-Interim and ERA-20C reanalyses. Budapest, Master thesis (supervisor: István Ihász) [[PDF](#)]

**Dóra Cséke**, 2018: Comparison of ECMWF ERA-Interim and ERA-20C reanalyses. Budapest, Master thesis (supervisor: István Ihász) [[PDF](#)]

**Boglárka Tóth**, 2020: Comparison of ECMWF ERA-Interim and ERA-20C reanalyses. Budapest, Master thesis (supervisor: István Ihász) [[PDF](#)]

### **Students' papers made for Scientific Conferences for Students**

**Szintai, Balázs**, 2005: Clustering of the ECMWF's medium-range ensemble forecasts. *Award 2 on Scientific Conferences for Students*. (supervisor: István Ihász).

**Mile, Máté**, 2008: Calibration of ECMWF's medium-range ensemble forecasts. *Award 1 on Scientific Conferences for Students*. (supervisor: István Ihász).

**Üveges, Zoltán**, 2009: Calibration of ECMWF's monthly forecasts. *Award 2 on Scientific Conferences for Students*. (supervisor: István Ihász).

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**Németh, Csilla**, 2011: Verification of the calibrated ECMWF's probability forecasts. (supervisor: István Ihász).

**Tajti, Dávid**, 2011: Generation and verification of the ECMWF's ensemble vertical profiles. *Laudation on Scientific Conferences for Students*. (supervisor: István Ihász).

**Gaál, Nikolett**, 2012: Study of the cold drops based on ERA Interim reanalysis. *Special Award on Scientific Conferences for Students*. (supervisor: István Ihász).

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**Cséke, Dóra**, 2017: Estimation of the probability of the precipitation type based on ECMWF ensemble forecasts. *Award 1 on Scientific Conference for Students, at Section in Meteorology at Eötvös Loránd University* (supervisor: István Ihász)

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Budapest, 27 October 2021