

# CURRICULUM VITAE

## Personal Information:

**Abolfazl Neyestani**

PhD in Meteorology; MSE in Meteorology

Institute of Geophysics, University of Tehran

Birth: November 5, 1982 in Birjand, Iran

Language: Persian, English

## Address:

Department of Physics, Razi University, Tagh-e-Bostan St., Kermanshah, Iran

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## Degrees:

**PhD.** Meteorology, University of Tehran, Iran, 2017. Average point: 17.88 out of 20

Thesis: **The Impact of 3DVAR Data Assimilation on WRF Short-range Forecasts over IRAN.**

Supervisors: Dr. Sarmad Ghader and Dr. Alireza Mohebalhojeh from University of Tehran, Iran.

Advisor: Nils Gustafsson from SMHI, Norrköping, Sweden.

**M. Sc.** Meteorology, University of Tehran, Iran, 2011. Average point: 17.32 out of 20

Thesis: **Evaluation of WRF Short-range Temperature and Precipitation Forecasts over Iran.**

Supervisors: Dr. Sarmad Ghader and Dr. Farahnaz Taghavi.

**B. SC.** Power Electric Engineering, University of Birjand, Iran, 2006. Average point: 14.86 out of 20

## Computer Skills:

MATLAB, FORTRAN, GrADS, NCL, Linux shell scripting, python

## Selected Honors and Awards:

► Ranked 1<sup>th</sup> in entrance exam for PhD degree of meteorology, Iran, 2012.

## Research Interests:

Forecast Verification, Climate Variability, Numerical Weather Prediction, Data Assimilation, Time Series Analysis.

## Journal Publications:

**Neyestani, A.**, 2023, The relationship between surface pressure and temperature fields over Iran: An approach based on multiple time-scales analysis of NCEP/NCAR reanalysis data, *Journal of the Earth and Space Physics*, 50.

**Neyestani, A.**, 2023, Multiple-scale temporal variability of climate time series in the western region of Iran, *Sustainable Earth Review*, 3.

**Neyestani, A.**, 2023, Study of the interrelationship between global climate indices at different time scales, *Iranian Journal of Geophysics*, 17.

**Neyestani, A.**, Karami, Kh., Gholami, S., 2022, Exploring the possible linkage between the precipitation and temperature over Iran and their association with the large-scale circulations: Cumulative spectral power and wavelet coherence approaches, *Atmospheric Research*, 274.

**Neyestani A.**, 2022, On the design and implementation of digital filters to process meteorological signals, *Journal of the Earth and Space Physics*, 49.

**Neyestani A.**, Gustafsson, N., Ghader, S., Mohebalhojeh, A.R., Körnich, H., 2021, Operational convective-scale data assimilation over Iran: a comparison between WRF and HARMONIE-AROME. *Dynamics of the Atmospheres and Oceans*, 95.

**Neyestani A.**, Ghader, S., Gustafsson, N., Mohebalhojeh, A., 2018, Inter-comparison of HARMONIE and WRF model simulations in convective-permitting scale over western area of Iran, *Iranian Journal of Geophysics*, 12.

**Neyestani, A.**, Ghader, S., Mohebalhojeh, A., 2017, Application of data assimilation using WRF model to simulate precipitations caused by synoptic systems in the western regions of Iran. *Iranian Journal of Geophysics*, 11.

Karami, Kh., Ghader, S., Bidokhti, AA., Joghataei, M., **Neyestani, A.**, Mohammadabadi, A., 2012., Planetary and tidal wave-type oscillation in the ionospheric sporadic-E layers over Tehran region, *Journal of Geophysical Research*, 117.

Taghavi, F., **Neyestani, A.**, Mohhamadi, H., Rostami Jalilian, Sh., 2012, Application of wavelet analysis to investigate precipitation variability at western regions of Iran. *Iranian Journal of Geophysics*, 5.

Taghavi, F., **Neyestani, A.**, Ghader, S., 2013, Evaluation of short range precipitation forecasts of WRF model over Iran. *Journal of the Earth and Space Physics*, 39.

Moghbel, M., Davoudi, M., **Neyestani, A.**, Taghavi, F., 2013, Spatial and temporal study of precipitation characteristics over Iran. *Iranian Journal of the Geography and Environmental Planning*, 51.

### **Conference Papers:**

**Neyestani A.**, 2023, Study the variability of observed meteorological quantities in the western Iran with multi-scale analysis approach, *4<sup>th</sup> National Conference on Data Mining in Earth Sciences*, Arak, Iran.

**Neyestani A.**, 2020, Application of CSP method to study the variability of climatic data, *20<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani A.**, 2020, Study of the possible relationship between global climate signals, *20<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani A.**, 2020, Precipitation forecast in convective scale; does data assimilation have any positive impact? *19<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani A.**, Ghader, S., Mohebalhojeh, A.R., 2018, Impact of using different ICs/LBCs on the WRF model simulations over the western part of Iran. *18<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani A.**, Ghader, S., Mohebalhojeh, A.R., 2018, Inter-comparison between WRF and HARMONIE forecasts by applying 3D-Var data assimilation method in the west of Iran. *18<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani, A.**, Fakhri Bafghi, B., Rostami Jalilian, Sh., 2016, Application of Numerical Weather Prediction and Data Assimilation in Meteorological Disaster Risk Management in Tehran: Dust Storm. *6<sup>th</sup> International Disaster and Risk Conference IDRC Davos 2016*, Davos, Switzerland.

**Neyestani, A.**, Taghavi, F., 2012, Multiscale analysis of oscillation patterns in precipitation time series in the South Khorasan province. *15<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani, A.**, Taghavi, F., 2012, Verification of short-range precipitation and temperature forecasts of WRF model over Iran. *15<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

Taghavi, F., **Neyestani, A.**, 2010, A case study of precipitation variability using wavelet and spectral analysis. *14<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

Yazgi, D., **Neyestani, A.**, Taghavi, F., 2010., Study of seasonal cycle of precipitation in the middle east based on the spectral analysis of observations and a general circulation model CM2.1. *14<sup>th</sup> Iranian Conference of Geophysics*, Tehran, Iran.

**Neyestani, A.**, Taghavi, F., 2009, Spectral analysis of climatological time series with applying digital filter. *4<sup>th</sup> Conference of Climate Change*. Tehran, Iran.

### **Some Peer Reviewed Manuscripts:**

Influence of Madden-Julian Oscillation on Summer Precipitation over the Tibetan Plateau. **Atmospheric Research.**

Monthly variations of forcing mechanisms of austral summer precipitation in subtropical Argentina. **Atmospheric Research.**

The study of sensitivity of WRF model to the initial and boundary conditions in the simulation of the temperature and heavy rainfall of the northwestern region of Iran (case study, April 14, 2017). **Journal of the Earth and Space Physics.**

**And etc.**