

# CURRICULUM VITAE

Dr Avraam Charakopoulos

## Personal

**Date of Birth:** January 29, 1978, Larisa, Greece

**Current Position:** Major Engineer at Hellenic Tactical Air Force (HTAF),  
Researcher at Laboratory of Hydromechanics and Environmental  
Engineering, Department of Civil Engineering, University of Thessaly

**E-Mail:** [avracha@yahoo.gr](mailto:avracha@yahoo.gr), [avracha@gmail.com](mailto:avracha@gmail.com)

**Tel:** +30 2410513245 (office) +30 2410282038 (home),  
+30 6983503234 (mobile)

**Honors and Awards:** 1st prize (member of working group) in the contest held by the Hellenic Ministry of National Defence for the best proposal/study on the development of environmental/energy infrastructures within the Hellenic Armed Forces.  
Dec 2014, Hellenic Ministry of National Defense, Athens

## Education

**Doctor of Philosophy (Ph.D.)** Department of Civil Engineering, University of Thessaly, Subject “Analysis and identification of spatiotemporal phenomena using advanced methods of time series analysis”

**Master of Science (MSc)** Department of Civil Engineering, University of Thessaly

**Bachelor of Science (BSc)** Engineering, Department of Engineering, Hellenic Air Force Academy

**Research Interests** Time Series, Linear and Nonlinear Analysis,  
Complex Network, Pattern Recognition,  
System Identification, Forecasting Methods.

## Journal Papers

- Fragkou, A., Charakopoulos, A., Karakasidis, T., Liakopoulos, A., **Non Linear Analysis of River System Dynamics**, Under Review
- Tsiotas, D., & Charakopoulos, A. (2020). **VisExpA: Visibility expansion algorithm in the topology of complex networks**. *SoftwareX*, 11, 100379.
- Charakopoulos, A., Karakasidis, T., & Sarris I. (2019). **Pattern identification for wind power forecasting via complex network and recurrence plot time series analysis**. *Energy Policy*, 133, 110934.
- Myrovali, G., Karakasidis, T., Charakopoulos, A., Tzenos, P., Morfoulaki, M., & Aifadopoulou, G. (2019). **Exploiting the Knowledge of Dynamics, Correlations and Causalities in the Performance of Different Road Paths for Enhancing Urban Transport Management**. *Decision Support Systems IX: Main Developments and Future Trends*, 28.
- Tsiotas, D., & Charakopoulos, A. (2018). **Visibility in the topology of complex networks**. *Physica A: Statistical Mechanics and its Applications*, 505, 280-292.
- Charakopoulos, A. K., Katsouli, G. A., & Karakasidis, T. E. (2018). **Dynamics and causalities of atmospheric and oceanic data identified by complex networks and Granger causality analysis**. *Physica A: Statistical Mechanics and its Applications*, 495, 436-453.
- A.K Charakopoulos, G Katsouli, T.E Karakasidis & and P. Papanicolaou, (2016). **Capturing System Dynamics Using Complex Networks and Granger Causality Analysis: Application to Atmospheric and Oceanic Data**. *ICSV 2016 - 23rd International Congress on Sound and Vibration: From Ancient to Modern Acoustics*.
- A.K Charakopoulos, T.E Karakasidis & A. Liakopoulos (2015). **Spatiotemporal Analysis of Seawatch Buoy Meteorological Observations**. *Environmental Processes*, 2(1), 23-39.
- A.K Charakopoulos, T.E Karakasidis, P.N Papanicolaou and A. Liakopoulos (2014) **Nonlinear time series analysis and clustering for jet axis identification in vertical turbulent heated jets**. *Physical Review E*, 89, 032913.
- A.K Charakopoulos, T.E Karakasidis, P.N Papanicolaou and A. Liakopoulos (2014) **The application of complex network time series analysis in turbulent heated jets**. *Chaos* 24, 024408.
- A.K Charakopoulos, T.E Karakasidis, P.N Papanicolaou (2012) **Detection of jet axis in a horizontal turbulent jet via nonlinear analysis of minimum/maximum temperature time series**. *Chaotic Modeling and Simulation (CMSIM)*, 1: 205-217.
- T. Karakasidis and A. Charakopoulos (2009) **Detection of low-dimensional chaos in wind time series**. *Chaos, Solitons & Fractals*, 41 1723-1732.