

## ΚΥΚΛΟΣ ΣΕΜΙΝΑΡΙΩΝ ΣΤΑΤΙΣΤΙΚΗΣ 2024-2025

**Angelos Markos,**

*Professor & Dean, School of Education / Department of Primary Education /  
Democritus University of Thrace*

### **Distance-Based Methods for Mixed-Type Data: Advances and Applications**

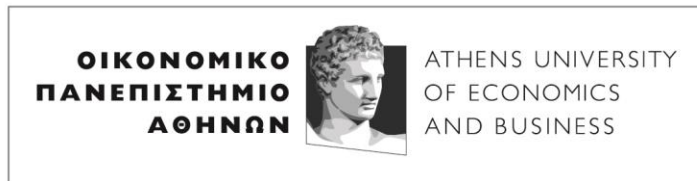
ΠΑΡΑΣΚΕΥΗ 4/4/2025  
12:00

TEAMS [LINK](#)

#### **ΠΕΡΙΛΗΨΗ**

This lecture provides a comprehensive overview of distance-based methods for analyzing mixed-type data, with a particular focus on clustering techniques and their practical applications across various domains. Key topics include unbiased distance metrics, computational optimization strategies, and effective methods for integrating categorical, ordinal, and continuous variables. The presentation will delve into the theoretical foundations of different distance measures and their impact on clustering performance across diverse data structures. Additionally, the role of distance-based classification methods in enhancing predictive modeling and classification accuracy will be explored. Recent methodological advancements will be highlighted, along with the challenges researchers encounter when working with heterogeneous datasets. The session will conclude with practical implementation strategies, including the use of specialized software packages and guidelines for selecting appropriate distance measures based on specific data characteristics and research objectives.

Joint work with M. Van de Velden, C. Cavicchia (Erasmus University Rotterdam), A. Iodice D'Enza (University of Naples Federico II), E. Costa, I. Papatsouma (Imperial College London)



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#### **ABSTRACT**

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