



Research Seminar Series in Economic Sciences, 2024 – 2025

Speaker: [Sat Gupta, PhD](#), Fellow of the American Statistical Association Elected Member - International Statistical Institute Professor of Statistics & Head Department of Mathematics and Statistics



Title: "The effect of measurement error and untruthfulness on binary RRT models"

Date & Time: Friday, January 10th, 2025, 15:00 - 16:30

Place: Grypario Megaro (Sofokleous 1) | 4th floor | Lecture Hall "Kosmas Psychopedis" (416)

Live streaming of the event: <https://delos.uoa.gr/opendelos/search-live>

Url: https://www.econ.uoa.gr/ereynitika_seminaria_research_seminars/

Abstract:

This study introduces the effect of measurement error and untruthfulness on Binary Randomized Response Technique (RRT) models. We discuss a method for estimating and accounting for measurement error in two basic models and one comprehensive model. Both theoretical and empirical results show that not accounting for measurement error and trust leads to inaccurate estimates. Furthermore, we introduce a new measure of model privacy using an odds ratio statistic which offers better interpretability than traditional methods.

It is worth noting that while a large body of research exists on measurement errors in quantitative models, there is hardly any paper on this topic in the binary domain.

Organizers: Dimitris Kenourgios, *Professor*
George Dotsis, *Assoc. Professor*
Frago Kourandi, *Assist. Professor*

Thank you.

