



CENTAUR

DEPARTMENT OF MATHEMATICS
NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

RESEARCH LABORATORY FOR
STATISTICAL LEARNING AND DECISION SCIENCE

CENTER FOR STATISTICAL SUPPORT
AND STRATEGIC DEVELOPMENT

Research Seminar

A Rank-Based Test for Dependent Censoring in Survival Analysis

In survival analysis, the standard assumption of independent censoring is often unverifiable and may lead to biased inference if violated. In this talk, we propose a rank-based diagnostic procedure for dependent censoring. We consider the right-censoring setting and utilize the framework of copulas to represent the joint survival function. By mathematically establishing conditions under which a constant conditional event probability yields independence and conversely under additional identifiability assumptions, we construct a Wilcoxon-type rank statistic based on observable cause-specific quantities. The test is nonparametric with respect to the marginal time scale, conditional on the stated structural assumptions and relies on the ranks of the censored observations. Simulation results illustrate the operating characteristics of the test and a real-world data application is provided to illustrate its practical utility. This is joint work with Assistant Professor Fotios Siannis and Assistant Professor Emmanouil Androulakis.



Friday, 13.11.2026

13:00 - 14:00



CENTAUR Lab Room B

Department of Mathematics



Speaker

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