Survival Function Estimation with Nonparametric Adaptive Refined Descriptive Sampling algorithm

Mahdia Azzal and Megdouda Ourbih-Tari
Laboratoire de mathématiques appliquées
Université de Bejaia
Bejaia, Algerie
Azzal.mahdia@gmail.com, ourbihmeg@gmail.com

Abstract

This paper proposes Nonparametric Adaptive Refined Descriptive Sampling algorithm (NARDS) to estimate the survival function in lifetime models using Kaplan-Meier and Fleming-Harrington estimators. Simulations were performed using real data to generate inputs. The obtained results prove that NARDS works well on nonparametric data.

Keywords
Nonparametric estimation, Sampling, Monte Carlo simulation.

Biography

Mahdia Azzal is a doctorate student at the department of Mathematics in Analysis and Probability at Bejaia University. She received her License in Applied Mathematics and Master Degree in Stochastic Modeling, both at M’Hamed Bouguerra University of Boumerdes.