



dmata

universidade de aveiro
departamento de matemática

CIDMA

CENTRO DE I&D EM MATEMÁTICA E APLICAÇÕES
CENTER FOR R&D IN MATHEMATICS AND
APPLICATIONS

Seminário

Grupo de Probabilidades e Estatística

6 de fevereiro de 2020

14:15

Sala Sousa Pinto

How to navigate between several multivariate statistical techniques to reach the right port in Health Metrics: Application of the mixture item response theory model to the Self-Administered Food Security Survey Module for Children

Milton Severo

Departamento Ciências da Saúde Pública e Forenses, e Educação Médica, Faculdade de Medicina da Universidade do Porto e Unidade de Investigação em Epidemiologia (EPIUnit), Universidade do Porto

Abstract

Multivariate statistical techniques are central core of health metrics. A data scientist needs to navigate between principal components analysis, factor analysis, confirmatory analysis and latent variables models to achieve the right port. Needs to understand terms like reliability, dimensionality, internal consistency, construct, test-retest and measurement invariance.

The Self-Administered Food Security Survey Module for Children was developed to assess food insecurity of individual children and has not been used in Portugal. We aimed to apply the mixture item response theory model to the Self-Administered Food Security Survey Module for Children, to assess its reliability and validity, and to estimate the cut-offs of the food security status for Portuguese children. Latent Class Analysis, Latent Trait Analysis and Mixture Latent Trait Analysis were tested to assess the reliability, validity and invariance of the questionnaire.

FCT Fundação para a Ciência e a Tecnologia

MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR

This seminar is supported by CIDMA - Center for Research and Development in Mathematics and Applications and by FCT-Fundação para a Ciência e a Tecnologia”, within project UID/MAT/04106/2019 (CIDMA).