



UNIVERSIDAD TECNICA
FEDERICO SANTA MARIA

DEPARTAMENTO
DE MATEMÁTICA

Próximo Seminario DMAT

Jueves 25 de Septiembre de 2025, 12:30 - 13:30

SALA DE SEMINARIOS, DMAT

INÉS MARÍA VARAS

(PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE)



Statistical modelling for psychometric problems

Data analysis in psychological and educational measurement involve different approaches. This talk brings together two such approaches. First, within a Bayesian latent-equating framework tailored to discrete scores, we extend equating across standard designs avoiding continuity assumptions of traditional equating methods. Second, we address predictive validity under selection processes: because university outcomes are observed only for admitted students, standard regression coefficients—and the underlying regression model—are not identified under typical admissions rules. Rather than assume ignorability, we use partial identification to obtain informative ranges for the relationship between selection criteria and academic success, making explicit how missing outcomes shape conclusions.