

Item Response Theory (IRT)

From basics to extensions and research applications

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Programme of the course

I PART

Preliminaries

- Psychological attributes as latent variables;
- Challenges in the measurement of latent constructs;
- What is a questionnaire?
- What is psychometric theory about?

IRT assumptions

IRT classical models

Estimation methods

Graphical Diagnostic Tools

Model selection and goodness of fit

Some IRT extended models

- IRT models for non-dichotomous items
- The Latent Class (LC) multidimensional IRT model

II PART

Traditional uses of classical IRT models

- Test validation phase (pre-test)
- Level Setting
- Test Equating

Most recent uses of IRT models and their extensions

Is IRT useful for *YOUR* research? PhD students at work!