## Thursday 25 July 2024

## 09:00-12:30 Mini Symposium 2 (Room 2)

STRengthening Analytical Thinking for Observational Studies (STRATOS) initiative – recent progress and foci for the future

Organizers: Willi Sauerbrei and Els Goetghebeur in collaboration with the STRATOS Steering Group

## An Overview and Recent Developments in the Analysis of Multistate Processes

**Malka Gorfine,** Richard Cook, Per Kragh Andersen, Terry Therneau, Hein Putter, Pierre Joly, Michal Abrahamowicz for TG8:

Multistate models offer a powerful framework for studying disease processes and can be used to formulate intensity-based and more descriptive marginal regression models. They also represent a natural foundation for the construction of joint models for disease processes and dynamic marker processes, as well as joint models incorporating random censoring and intermittent observation times. This article reviews the ways multistate models can be formed and fitted to life history data. Recent works on pseudo-values and accommodation of random effects as a method of incorporating a dependence on the process history and between-process heterogeneity are also discussed. The software available to facilitate such analyses is listed.