

ERACOL| research lines Katholieke Universiteit Leuven

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General information

Institution:	Katholieke Universiteit Leuven
City:	Leuven
Country:	Belgium

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1. research line 1:
The statistical analysis of longitudinal data
2. general description of the research line:
Longitudinal data is the type of data that is obtained if a specific outcome is measured repeatedly over time for a number of subjects. The statistical analysis of such data calls for specific models that take into account the correlation of the repeated measurements within subjects.
3. specific subtopics within the research line:
Model development Model checking Model diagnostics
4. contact person for interested students/teaching staff:
Geert Verbeke (geert.verbeke@med.kuleuven.be)
5. Field of research (for example: epidemiology, public health, statistics, medicine):
Biostatistics
6. for which levels the research line is applicable (undergraduate, master, doctorate, post-doctorate/teaching staff)
Master, doctorate, post-doctorate, teaching-staff

1. research line 2:
Mixed and multilevel models
2. general description of the research line:
A very flexible class of statistical models for the statistical analysis of longitudinal data is mixed-effects. While these models have been available since long in the literature as well as in the statistical software, there are still many open research questions with respect to model validation.
3. specific subtopics within the research line:
Model development Model checking Model diagnostics
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1. research line 3:
Methods for handling missing data in longitudinal studies
2. general description of the research line:
When longitudinal data are collected, one is often confronted with missing observations, i.e., some observations have not been collected, due to known or unknown reasons. This calls for appropriate statistical methods to correct for potential bias in the results.
3. specific subtopics within the research line:
Model development Model checking Model diagnostics Sensitivity analysis
4. contact person for interested students/teaching staff:
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5. Field of research (for example: epidemiology, public health, statistics, medicine):
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1. research line 4:
Surrogate endpoints in clinical studies
2. general description of the research line:
To speed up drug development, by shortening the length of trials and/or reducing sample sizes, the use of surrogate endpoints, i.e., biomarkers and other markers that can be used in lieu of the true endpoint, is appealing. Such surrogate endpoints need to be thoroughly evaluated.
3. specific subtopics within the research line:
Model development Marker evaluation \
4. contact person for interested students/teaching staff:
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5. Field of research (for example: epidemiology, public health, statistics, medicine):
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