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## Postdoctoral course *Multilevel Analysis*

**4-7 June 2007 (Monday-Thursday)**

**Final registration date: 18 May 2007**

**Instructor(s):** Rien van der Leeden

**Location and how to get there:** Leiden University, Faculty of Social and Behavioral Sciences

### **Short description of the course:**

Hierarchically structured data are frequently encountered in many areas of (social) scientific research. Such data are characterized by so-called 'nested' membership relations among the units of observation. For instance, students are nested within classes, which are nested within schools, or employees are nested within departments. Traditional, 'single level', data analysis methods fail when data are hierarchically structured. The nested structure causes 'intraclass correlation' among the observations within units at the higher level. As a result, the assumption of independence is violated. Multilevel analysis is a class of methods employing hierarchical linear regression models, that explicitly take into account the hierarchical data structure. It provides researchers with a flexible and powerful set of tools with respect to both model formulation and hypothesis testing. Multilevel analysis proves to be statistically more precise. Also, it has been argued that these models are conceptually uplifting.

This course is an introductory course in multilevel analysis. The aim is to provide students with (1) a basic understanding of the so called random coefficient model, which can be regarded as one of the key models in multilevel modeling, and (2) basis skills in the application of the software package MLwiN, one of the major software packages for multilevel analysis.

**Course format:** lectures combined with computer lab

**Language:** English / Dutch

**Prerequisites:** working knowledge of multiple regression analysis

**Literature (books, readers), price:** recommended text:

Kreft, I., & De Leeuw, J. (1998). *Introducing Multilevel Modeling*. London: Sage.

**Minimum/maximum number of participants: 10/25**

**Certificate:** yes

**Number of European Credit Points: 2 ECTS**

**Fees**

IOPS PhD students	Free
PhD students appointed as AiO at a university	€ 400 and € 25 registration fees; additional costs for course materials
IOPS staff members, and IOPS alumni	€ 400 and € 25 registration fees; additional costs for course mate
Other participants	€ 1200 and € 25 registration fees; additional costs for course materials

**Information and registration**

Lidy van Everdingen (IOPS course administration)

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**Cancellation**

No refund is made for cancellations after the final registration date of the course.