

# METHODOLOGICAL SERVICES

20. September 2011

## WORKSHOP: „INTRODUCTION TO THE ANALYSIS OF INCOMPLETE DATA SETS“

PROF. DR. TENKO RAYKOV  
(MICHIGAN STATE UNIVERSITY)

Sehr geehrte Damen und Herren,

ich darf Sie mit diesem Schreiben auf einen Workshop von Herrn Prof. Dr. Tenko Raykov von der Michigan State University aufmerksam machen.

Der 2-tägige Workshop hat eine Einführung in die Missing-Data-Analyse zum Inhalt. Er richtet sich an empirisch arbeitende Forscher der Wirtschafts-, Erziehungs-, Verhaltens- und Sozialwissenschaften sowie der Biomedizin, die regelmäßig mit unvollständigen Datensätzen konfrontiert sind.

Im Rahmen des Workshops wird eine substantielle Einführung in die theoretischen Konzepte geboten. Anhand praktischer Beispiele werden die vorgestellten Methoden unter Verwendung populärer Softwarepakete wie z.B. Mplus, Stata und R eingeübt.

Zeitpunkt: 15. und 16. Dezember 2011 (jeweils ganztägig)

Ort: Welcome Hotel Darmstadt (<http://www.welcome-hotel-darmstadt.de/>)  
Karolinenplatz 4  
64289 Darmstadt

Teilnahmegebühr: 280,- Euro (incl. Getränke)

Anmeldeschluss: 30. November 2011 (solange Plätze verfügbar)

Eine Anmeldung ist per E-Mail an [info@methodological-services.com](mailto:info@methodological-services.com) möglich.

Bitte beachten Sie auch die englischsprachige Kurzbeschreibung des Workshops des Dozenten, die diesem Schreiben anhängt.

Mit freundlichen Grüßen

Augustin Kelava

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## INTRODUCTION TO THE ANALYSIS OF INCOMPLETE DATA SETS

PROF. DR. TENKO RAYKOV

MICHIGAN STATE UNIVERSITY, USA

Missing data pervade the social, behavioral, educational and biomedical sciences, as well as many other scientific fields. Most studies in them lead to incomplete data sets where some studied subjects do not provide data on one or more observed variables. Analysis of such data sets has been always of special interest in these disciplines, and for most of the past century also a serious challenge. In fact, missing data analysis has become a major research field over the last several decades in statistics and areas of its application, with multiple and far reaching implications for social science research in particular.

This 2-day workshop provides an introduction to the applied statistics field of missing data analysis. Main mechanisms of missing data are initially focused on. Limitations of previous, ad hoc methods for dealing with incomplete data sets are subsequently highlighted. Two principled approaches to the analysis of missing data are next discussed – (full information) maximum likelihood and multiple imputation. The inclusive analytic strategy based on auxiliary variables is finally covered, which is applicable with the former approach when there are deviations from the assumption of data missing at random. Throughout the workshop, multiple empirical examples are used, and the software Mplus, Stata, and R are utilized.

The instructor for the workshop short course, Prof. Dr. Tenko Raykov, is a Professor of Measurement and Quantitative Methods at Michigan State University, East Lansing, USA. He has authored over 100 peer-refereed articles in leading quantitative behavioral journals, as well as 3 books (with Prof. Dr. George A. Marcoulides). He teaches courses in structural equation and latent variable modeling, multilevel/hierarchical linear and nonlinear modeling, psychometric theories (behavioral and social science measurement), as well as multivariate statistics; and units in survival (event-history) models, missing data modeling, latent class analysis, and statistical analysis with R as well as Stata. He has also taught lecture series and short courses in the areas of analysis of incomplete data sets, latent class modeling, and multilevel and mixed modeling at the Interdisciplinary Consortium for Political and Social Research (ICPSR) at the University of Michigan at Ann Arbor.