



KU LEUVEN

Statistics and Econometrics Seminar

Joint organization by
ORSTAT, Faculty of Business and Economics and the Statistics Research Group,
Faculty of Science
Leuven Statistics Research Center

Prof. Dr. Uschi Müller-Harknett

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“Complete case analysis revisited”

Thursday, May 3, 2012

12.00–13.00h

Location: Room HOG 03.101, Naamsestraat 69, Leuven.

Supporting research project: GOA-project 2007/04

Abstract. I present a general method for obtaining limiting distributions of complete case statistics for missing data models from those of the corresponding statistics when all data are observed. This provides a convenient tool to obtain the asymptotic behaviour of complete case versions of established methods without (reproducing) lengthy proofs.

It is well known that a statistical analysis which ignores cases that are only partially observed does not always perform well and that an approach which imputes missing values often has better properties. However, there are situations where a complete case analysis is appropriate. The methodology is illustrated by analysing inference procedures for partially linear regression models with responses missing at random: we derive asymptotically efficient estimators of the slope parameter and present an asymptotically distribution free test for fitting a normal distribution to the errors.

Joint work with: Hira L. Koul and Anton Schick.