ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

ΣΧΟΛΗ ΕΠΙΣΤΗΜΩΝ & ΤΕΧΝΟΛΟΓΙΑΣ ΤΗΣ ΠΛΗΡΟΦΟΡΙΑΣ
SCHOOL OF INFORMATION SCIENCES & TECHNOLOGY

ΤΜΗΜΑ ΣΤΑΤΙΣΤΙΚΗΣ
DEPARTMENT OF STATISTICS

ΚΥΚΛΟΣ ΣΕΜΙΝΑΡΙΩΝ ΣΤΑΤΙΣΤΙΚΗΣ – ΜΑΙΟΣ 2016

Gerda Claeskens

Research Centre for Operations Research and Business Statistics (ORSTAT),
University of Leuven, Belgium

Confidence intervals after selection by Akaike's information criterion

ΔΕΥΤΕΡΑ 16/5/2016
13:00

ΑΙΘΟΥΣΑ 607, 6ος ΟΡΟΦΟΣ,
ΚΤΙΡΙΟ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ
(ΕΥΕΛΠΙΔΩΝ & ΛΕΥΚΑΔΟΣ)

ΠΕΡΙΛΗΨΗ

Once a model is selected, say by the Akaike information criterion, we often wish to use the selected model for inference. A correct procedure takes the uncertainty of the selection process into account. For the case of selection by the Akaike information criterion, we use its overselection property to obtain the asymptotic distribution of parameter estimators in the selected model. It turns out that the limiting distribution depends on which models are considered in the selection, as well as on the smallest such model that is overparametrized, without requiring the true model to be known. A simulation scheme allows to obtain the specific distributions of estimators after AIC selection, and provides correct confidence regions. This is joint work with A. Charkhi.

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DEPARTMENT OF STATISTICS

AUEB STATISTICS SEMINAR SERIES – MAY 2016

Gerda Claeskens

Research Centre for Operations Research and Business Statistics (ORSTAT),
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MONDAY 16/5/2016
13:00

ROOM 607, 6th FLOOR,
POSTGRADUATE STUDIES BUILDING
(EVELPIDON & LEFKADOS)

ABSTRACT

Once a model is selected, say by the Akaike information criterion, we often wish to use the selected model for inference. A correct procedure takes the uncertainty of the selection process into account. For the case of selection by the Akaike information criterion, we use its overselection property to obtain the asymptotic distribution of parameter estimators in the selected model. It turns out that the limiting distribution depends on which models are considered in the selection, as well as on the smallest such model that is overparametrized, without requiring the true model to be known. A simulation scheme allows to obtain the specific distributions of estimators after AIC selection, and provides correct confidence regions. This is joint work with A. Charkhi.