Anable Forte Deltell
University of Valencia

Group invariance for objective prior elicitation in testing problems

ΠΕΜΠΤΗ 10/1/2019
13:00

ΑΙΘΟΥΣΑ ΘΑ ΑΝΑΚΟΙΝΩΘΕΙ
ΝΕΟ ΚΤΙΡΙΟ ΟΠΑ, (ΤΡΟΙΑΣ 2)

ΠΕΡΙΛΗΨΗ

In a Bayesian framework, Bayes factors and posterior probabilities of hypotheses are formal tools to approach testing problems with prior elicitation being one of the main challenges. This is a particularly delicate issue in an objective scenario where the prior information is scarce.

Bayarri et al. (2012) introduced a number of criteria upon which the prior elicitation of any testing problem should rely. Among those, the invariance criterion emerge as one of the most relevant. This criterion states that if the entertained models have a common group invariant structure this should be preserved after marginalization with respect to the prior. In this context, Bayarri et al. considered a general invariance group, common to any linear model but, if you look into the specific structure of a given model others transformations can be established.

This work deepens in the meaning and effect of this invariance criteria for a generalized scenario considering a model-specific type of invariance. The criterion hence, leads us to a better characterization of the prior distribution for the specific testing problem.

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THURSDAY 10/1/2019
13:00

**ROOM TBA,
NEW AUEB BUILDING, (TROIAS 2)**

ABSTRACT

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Bayarri et al. (2012) introduced a number of criteria upon which the prior elicitation of any testing problem should rely. Among those, the invariance criterion emerge as one of the most relevant. This criterion states that if the entertained models have a common group invariant structure this should be preserved after marginalization with respect to the prior. In this context, Bayarri et al. considered a general invariance group, common to any linear model but, if you look into the specific structure of a given model others transformations can be established.

This work deepens in the meaning and effect of this invariance criteria for a generalized scenario considering a model-specific type of invariance. The criterion hence, leads us to a better characterization of the prior distribution for the specific testing problem.