EPFL
ENAC TRANSP-OR
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Mathematical Modeling of Behavior
Fall 2015

Exercises session 9

The topic of the present and a following lab session (Dec 1st) is the estimation of Nested Logit (NL) and Cross-Nested Logit (CNL) models. You have to work on one of the two datasets, *Swissmetro* or *Residential Telephone Services*.

We suggest that you start by estimating different specifications of NL model. How can you test if the nesting structure is appropriate? What are the assumptions on the nesting coefficients? Continue by estimating different specifications of the CNL model. Estimate with fixed and unknown α's. For inspiration, you can refer to the *.pdf* of the case studies.

We refer to the BIOGEME tutorial (available on the course web site) for indications of how to specify the models.

Whenever the section *[LinearConstraints]* is used, the optimization algorithm in *default.par* will have to be changed from the default *BIO*. This means that *gevAlgo = "BIO"* will have to be changed to another optimization algorithm. We refer to page 17 of the BIOGEME tutorial for more information.

mbi/ ek/ afa /mdl