EPFL
ENAC TRANSP-OR
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Mathematical Modeling of Behaviour
Fall 2016

EXERCISES SESSION 5

The topic of this lab is the Multinomial Logit (MNL) model. You will work on the *Airline Itinerary Choice* dataset. On the course webpage we provide the data file (`.dat`) as well as 3 example models (`.py`) for it.

The goal of this lab is to estimate different specifications of MNL models.

Question 1
Study the 3 model specifications (the `.py` files) provided on the course webpage. Try to understand which are the underlying assumptions and how these assumptions are modeled. Which of the provided models is the best? How do you test this?

Question 2
Choose one of the 3 models as a baseline and improve it by performing the following actions:

1. Add some characteristics of the decision makers to the utilities.

2. Include interactions of attributes of the alternatives with the characteristics of the individuals and provide an explanation of what they are capturing.

mbi/ ek/ afa/ mpp