## Choice models applied to experimental data: an introduction

This course provides practical introduction on applying choice models to data from laboratory experiments. The course starts out with an introduction to the literature that provides the motivation and theoretical foundation for modelling behavior by means of logit models. The course proceeds in a workshop format. Participants are introduced to examples of data structures from different types of experiments such as, for example, "dictator games" and "cournot games". Participants will be working actively with analyzing example data sets in STATA and Excel and learn how to simulate choice behavior for a given experimental design.

Participants will be introduced to several types of choice models and use STATA for estimating multinomial logit model, mixed logit model, generalized multinomial logit model, quantal response equilibrium choice model. Participants must have access to the recent versions STATA, Excel, and Gambit. Basic experience with using STATA and Excel is recommended. Gambit can be dowlnoaded here: <u>http://www.gambit-project.org/</u>Kenneth Train's textbook «Discrete choice methods with simulation, (Second edition)» is the main textbook reference for the course. It can be downloaded from Train's own webpage: <u>https://eml.berkeley.edu/books/choice2.html</u>. Additional material will be shared at Geir Godager's webpage <a href="http://godager.net/course">http://godager.net/course</a>

# **Course outline**

	Tuesday Feb 22.
	Introduction. A guide to choice modelling literature
09:00-11:00	Course introduction. General background. Reading guide.
11:00-13:00	Break. Assignments with Q&A.
13:00-15:00	Concepts, types of questions and empirical approaches. The foundation of Logit.
	Wednesday Feb 23.
	Choice experiments
09:00-11:00	Create choice menus. Specify preferences. Simulate choices.
11:00-13:00	Break. Assignments with Q&A.
13:00-15:00	Heterogeneity in preference and scale. Fairness. Altruism.
	Thursday Feb 24.
	Quantal response equilibrium
09:00-12:00	Create payoff matrices. Analyze strategic games in gambit and Excel.
12:00-13:00	Break.
13:00-14:00	Games with n players.
14:00-15:00	Assignments with Q&A.

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#### Datasets to be used in the course:

- Almås, I., Cappelen, A. W., & Tungodden, B. (2020). Cutthroat capitalism versus cuddly socialism: Are Americans more meritocratic and efficiency-seeking than Scandinavians?. *Journal of Political Economy*, *128*(5), 1753-1788.
  https://www.journals.uchicago.edu/doi/suppl/10.1086/705551
- Huck, S., Normann, H. T., & Oechssler, J. (2004). Two are few and four are many: number effects in experimental oligopolies. *Journal of economic behavior & organization*, *53*(4), 435-446.
  - o <u>https://heidata.uni-heidelberg.de/dataset.xhtml?persistentId=doi:10.11588/data/10017</u>
- Ge, G., & Godager, G. (2021). Data from an incentivized laboratory experiment on strategic medical choices. *Data in brief, 35*, 106926.

o https://www.sciencedirect.com/science/article/pii/S2352340921002109

- Wang, J., Iversen, T., Hennig-Schmidt, H., & Godager, G. (2020). Are patient-regarding preferences stable? Evidence from a laboratory experiment with physicians and medical students from different countries. *European Economic Review*, *125*, 103411.
  - o <u>https://www.med.uio.no/helsam/english/research/network/irecohex/data/index.html</u>