# **Programming Economic Experiments with z-Tree**

March 2 to 4, 2015, University of Konstanz

#### Monday, March 2, 9am to 1pm

**Overview, Irenaeus.** It is shown how a public goods experiment is programmed and tested. This unit gives a first overview of the structure of the program. Participants get a first impression how to program and to run experiments with z-Tree.

Exercise. First steps with z-Tree. Public goods game.

**Programming, Konstantin.** Payoff functions are defined in programs. The syntax of programs and the most important functions are presented. Furthermore, it will be shown how the programs are executed.

### Monday, March 2, 2pm to 5pm

Exercise. Programming.

**Layout, Irenaeus.** The different user interface elements are presented and screen layout options are explained.

**Course of action, Irenaeus.** It is shown how different courses of action are implemented: Asymmetric games, sequential move games, simple posted offer markets.

**Exercise**. Ultimatum game.

#### Tuesday, March 3, 9am to 1pm

**Running a session, Konstantin.** First, we show how to run a "normal" session. Then, we deal with problems that may occur during a session (crash of a computer, subjects who make losses). Finally, it is shown how to install z-Tree in a way that makes conducting experiments most convenient.

**Matching and Parameter Table, Urs.** It is shown how individual parameters can be defined and how different group matching methods can be implemented (for instance partner and stranger matching).

## Exercise.

**Market experiments, Irenaeus.** It is shown how experiments with more complex market structures are programmed: Examples are single sided auction markets, double auction markets, posted offer markets, and Dutch auctions.

## Tuesday, March 3, 2pm to 5pm, Urs

**Exercise**. Double Auction.

**Graphics, Urs.** First, we present graphical representations like line and box charts. Then we will show how to program interactive graphics.

**Exercise**. Graphics.

## Wednesday, March 4, 9am to 1pm, Urs

**Engineering experiment.** We will discuss how to address complex programming problems in z-Tree.

Future directions in the development.

#### Wednesday, March 4, 2pm to 5pm, Urs

**Problems.** We will discuss problems of the participants. Please submit problems to urs.fischbacher@uni-konstanz.de.