Modelling and simulation project

ENM140, Game theory and rationality 2016

Document change log
7 december 2016: Elaborated instructions for contribution report.
7 december 2016: Updated presentation times.
2 november 2016: Moved oral presentations of projects to the A block, 12 and 14 December.

1 Overview

A major part of the course (40-50%; 80-100 h) is a game theory project, involving modelling, simulation and analysis of a model selected by the project group. The time estimate includes report, presentation and peer review.

Each group should have 3-4 members. (We anticipate 12-16 groups.) Join a project group on Ping Pong.

The project work will be preceded by a first individual assignment, in which each of you proposes a variation of an old game, or a new game. A selection of these suggestions will be discussed in a lecture, and some may be used as seeds for projects. But also entirely new ideas may be starting points for projects.

The project work will typically involve:

- Setting up a functioning computer simulation,

- Reproducing some earlier results (if based on old game idea),

- Investigating something new,

- Performing a game-theoretic analysis of the results.

2 Time plan

1. Game suggestion assignment, handed in not later than Monday Nov. 7, 18:00; discussed in lecture on Nov. 9 at 13:15. (See separate description.)

2. Project group formation: During week 3, you need to form the project groups. After the first hour of the lecture on Nov. 16 at 14:15, you have the lecture room available for group discussions. We will be available for questions during this hour.

3. Final short presentation of project idea (5 min/group) on Monday Nov. 21, 10:00. Written formulation of "First project description" submitted same day (see below).

4. Project supervisors selected, quick first feedback on project idea during week 4.

5. Up to two supervision meetings (2 x 20 min) during weeks 5-7.

6. Oral presentations in class of preliminary results by the project groups (15 min): on Monday, Dec. 12, 08:45–09:45 and Wednesday, Dec. 14, 14:15-15:00. Short feedback is given to you within a week.

7. Preliminary report submitted for peer review (Jan. 4) within the class, so you will give and get feedback (by Jan. 9).

8. Final report submitted by Jan. 13 (end of exam week). Feedback and grade will be given within 3 weeks.

3   First project description

The group submits through Ping Pong (no later than Monday, Nov. 21, 23:59) about half a page consisting of:

- Background (if you have been inspired by some game in the literature)

- Research/project question(s) and aim

- Method(s)

- Limitation/Scope

Focus on presenting the game-theoretic part(s) of the project and how to narrow your study into something doable. (You may modify the details of this; the point is that you should have an idea that you can start to work on.)

4   Peer review

An exchange of peer review comments is a compulsory part of the project work. The procedure is as follows:

- Each group submits a draft report no later than Wednesday 4 January 2017, 18.00.

- We randomly redistribute the reports among the groups for peer review by email, as soon as possible after the submission deadline. Each group receives the draft report of one other group.

- Each group collectively reviews the report draft of the other group. Please try to provide helpful comments. A separate document on the course homepage provides some suggestions on how to give useful peer review comments. Submit your review no later than 9 January 2017, 18:00 (through Ping Pong). Again, we send out the

review comments by email as soon as possible.

- Each group submits their final report no later than Friday 13 January 2017, 18:00. Only this final version is read and graded by the teachers.

We do not have any strict requirements on exactly what the peer review comments should contain. This is up to you. However, we do require that all groups do take part in the peer review in a serious way. It has to be clear from your peer review comments that you have indeed read the other group's draft report and that you have made an effort to provide relevant and helpful comments.

5 Project reports: Guidelines and grading

The final project report should follow academic standards.

The main text excluding figures, tables, etc must not exceed 4000 words. The report shall include the following sections: Introduction, Model and/or Method, Results, Discussion and/or Conclusions.

Contribution report

The report must also contain a contribution report.

Describe the contributions made by each person to the project work. Please indicate if some person made especially large or small contributions. Please also specify if there are substantial pieces of work that are not presented in the report, along with a brief explanation.

Specify for each section in the report who the main author/authors is/are.

Grading

The contribution report will be used in our assessment of your work, together with the following points:

- Clear presentation of model.

- Analysis and discussion of results, clearly relating to game-theoretic concepts.

- Less interesting result is not a problem if you provide an explanation why.

- Challenging and novel ideas are more difficult to work with, and we will take this into account in our evaluation.