



Lecture with Computer Exercises:
Modelling and Simulating Social Systems with MATLAB

Project Report

Insert Title Here
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Name 1 & Name 2

Zurich
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Agreement for free-download

We hereby agree to make our source code for this project freely available for download from the web pages of the SOMS chair. Furthermore, we assure that all source code is written by ourselves and is not violating any copyright restrictions.

Name 1

Name 2

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1 Abstract

2 Individual contributions

3 Introduction and Motivations

4 Description of the Model

5 Implementation

5.1 lol

The implementation of our model brings many features, as well as some added complexity.

A short overview about the core functionality:

- Problem Generation
According to user-set constants, the playfield is filled with Agents and Cops. These players are generated with all the required functionality to later perform their actions. Agents, for example, are already equipped with Hardship.
- Loop through steps
Since the problem is now specified, we can loop one step at a time, until we reach some final state. In each step, there are a few things that must be done:
 - Reset moves
Every Cop and Agent can move exactly once per step, so we must ensure that they can now move properly.
 - Release imprisoned
All the imprisoned Agents have their sentence reduced by one. All Agents with a sentence of zero or less are set free. They are randomly put onto empty fields on the playfield.
 - Move Cops and Agents
Agents scout out the empty fields in their vision, and choose one at random. In case there are no empty fields, they stay put.
Cops scout for active Agents, as well as empty fields. If they spot an Agent, they move to the Agent's field and arrest him. Should no Agent be inside the Cop's vision, they randomly move to an empty field. In case they can't find an Agent or an empty field, they stay put.

- Set status of Agents

6 Simulation Results and Discussion

7 Summary and Outlook

8 References