



Master's study

Field of study: Advanced Analytics – Big Data

Author's first name and surname: Bogdan Bojarin

Student's register No.: 75184

**Simulating firm's decisions  
in the incomplete information market**

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dr hab. Michał Ramsza

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# Contents

<b>1</b>	<b>Introduction</b>	<b>5</b>
<b>2</b>	<b>Mathematical models</b>	<b>6</b>
2.1	A model with a single firm . . . . .	6
2.2	A model with two firms . . . . .	6
<b>3</b>	<b>Implementation of mathematical models</b>	<b>7</b>
<b>4</b>	<b>Simulation results</b>	<b>8</b>
4.1	Simulations for a single firm . . . . .	8
4.2	Simulations for two firms . . . . .	8
<b>5</b>	<b>Conclusions</b>	<b>9</b>
	<b>List of tables</b>	<b>10</b>
	<b>List of figures</b>	<b>11</b>
	<b>Streszczenie</b>	<b>12</b>



# **1 Introduction**

## **2 Mathematical models**

Here we give mathematical formulation of all models, but also for every model we numerically solve the model for some selected values of initial and exogenous parameters. We need to make those variables exactly the same as the one we take for simulations so that we can compare the results.

### **2.1 A model with a single firm**

### **2.2 A model with two firms**

### **3 Implementation of mathematical models**

In this chapter we describe how we implemented the above mathematical models. So we do not give here any results, we just describe how we implement a consumer, how we implement a firm, what is an algorithm of the behavior of the firms, and so on and so forth.

## **4 Simulation results**

We show the results of simulations for various initial and exogenous parameters.

### **4.1 Simulations for a single firm**

### **4.2 Simulations for two firms**



## **5 Conclusions**

## List of Tables

## List of Figures

## **Streszczenie**

Tutaj zamieszczają Państwo streszczenie pracy. Streszczenie powinno być długości około pół strony.