Scientific Theory in Informatics A1N



Seminar 01

Complexity Theory
Automata Theory & Computability Theory

David Vernon School of Informatics University of Skövde

david.vernon@his.se

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide 1

Seminar Structure



- All groups will be selected during the seminar
 - Four for Complexity Theory
 - Five for Automata Theory & Computability Theory
- Each group will make a presentation on the exercise
- Followed by a brief class discussion
- Seminar: learning exercise, not an assessment exercise

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide 2

Seminar Structure



- To ensure that all students engage fully
 - All groups must hand up a printed copy of the two presentations they prepared for each seminar

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide

Group Members



Student	MSc	PhD	Group
Alhannah, Saehr			9
Augustsson, Peter	x		1
Bevilacqua, Fernando	X		1
Boltinskaya, Valeriya	x		1
Danielsson, Oscar		×	2
Drejing, Karl		x	2
Dubey, Rohini	x		2
Ekelund, Olof			9
Ezeh, Anthony	x		3
Erikson, Stefan		x	3
Gabilondo Intxaurraga, Ander	x		3
Gustavsson, Patrik		x	4
Huhnstock, Nikolas Alexander	x		4
Ismail, Muhammad		x	4
Karavatos, Athanasios	X		5
Lagerstedt, Erik		х	5
Langenhuisen, Werner	X		5
Lecuona Mugica, Iñigo	X		6
Liu, Yu		х	6
Ljungstrand, Lena	X		N/A
Majeed, Jabeer	x		6
Mohamed, Hilal S.	X		7
Nawaz, Amir	X		7
Petersson, Andreas	X		7
Rangasamy, Arulselvan	X		8
Ruiz Zúñiga, Enrique		х	8
Schmidt, Bernard		x	N/A
Siegmund, Florian		X	N/A
Svensson, Torbjörn		X	8
Vachoon Charifa	w		Ω

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide

Complexity Theory Exercises



Groups should answer the following questions in the problem sheet provided

```
» Group 1: 1
» Group 2: 2
» Group 3: 3
» Group 4: 4
» Group 5: 5
» Group 6: 6
» Group 7: 7
» Group 8: 8
» Group 9: 9
```

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide 5

Automata Theory & Computability Theory Exercises



Groups should answer the following questions in the problem sheet provided

```
» Group 1: 8
» Group 2: 7
» Group 3: 6
» Group 4: 5
» Group 5: 4
» Group 6: 3
» Group 7: 2
» Group 8: 1
» Group 9: 8
```

Scientific Theory in Informatics – Seminar 01: Complexity Theory and Automata Theory & Computability Theory – Slide 6