# Theory of Computation Fast review sheet.

<b>Topic</b> <u>Subtopic</u>	Review 1	Review 2	Review 3	Review 4	Review 5
Regular languages					
<u>Finite Automata</u>					
<u>Nondeterminism</u>					
<u>Regular Expressions</u>					
<u>Nonregular Languages</u>					
Context-Free Languages					

### 1. Regular languages

- 2. Finite Automata
- 3.
- 4. Definition of deterministic finite automaton; def formal computation; def regular language; def regular operations and closure thrm;
- 5. Nondeterminism
- 6. Def NFA; relation between DFAs and NFAs; closure thrm for regular operations and NFAs;
- 7. Regular expressions
- 8. Def regular expression; regular expression and regular language relation thrm;
- 9. Nonregular Languages
  - a) Pumping lemma for DFA;

### 10. Context-free grammars

## **Theory of Computation**

### Notes

1. E.T. + M. special need +25% time and text in bold and bigger

### 2. Presentations

- 1. Georg Cantor → Martin
- 2. Kurt Godel → Edoardo
- 3. Alan Turing  $\rightarrow$  Fanny (?)