# PhD Progress Report
1st year

Tommaso Papini

Department of Information Engineering, University of Florence, Italy
tommaso.papini@unifi.it

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- ► A hybrid technique for transient analysis
- ► Analysis of assembly lines
- ► Other projects
  - ► the LINFA project
  - ► Activity Recognition for Ambient Assisted Living
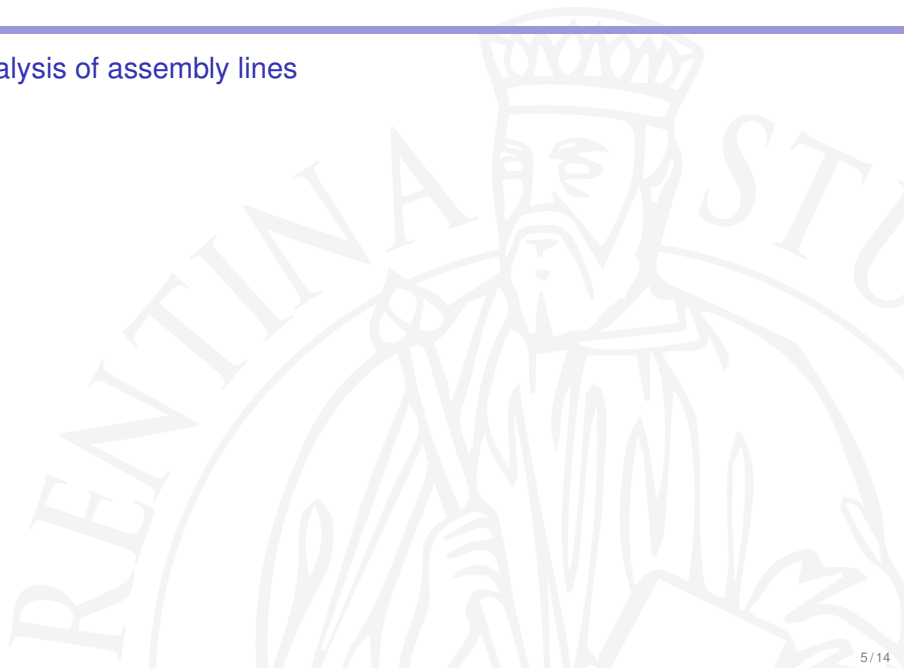- ► Research plan for the next year

A hybrid technique for transient analysis

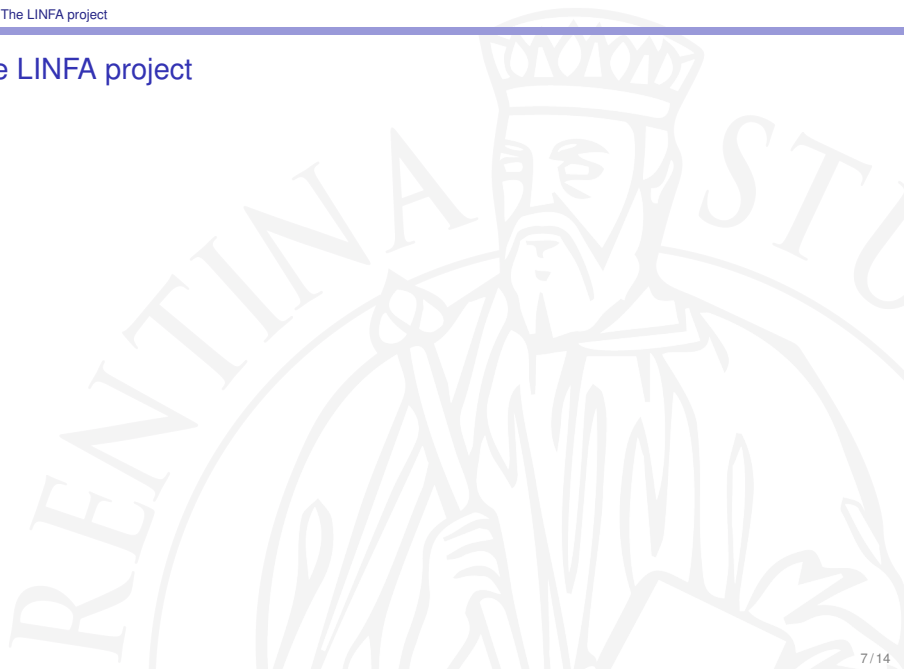# A hybrid technique for transient analysis
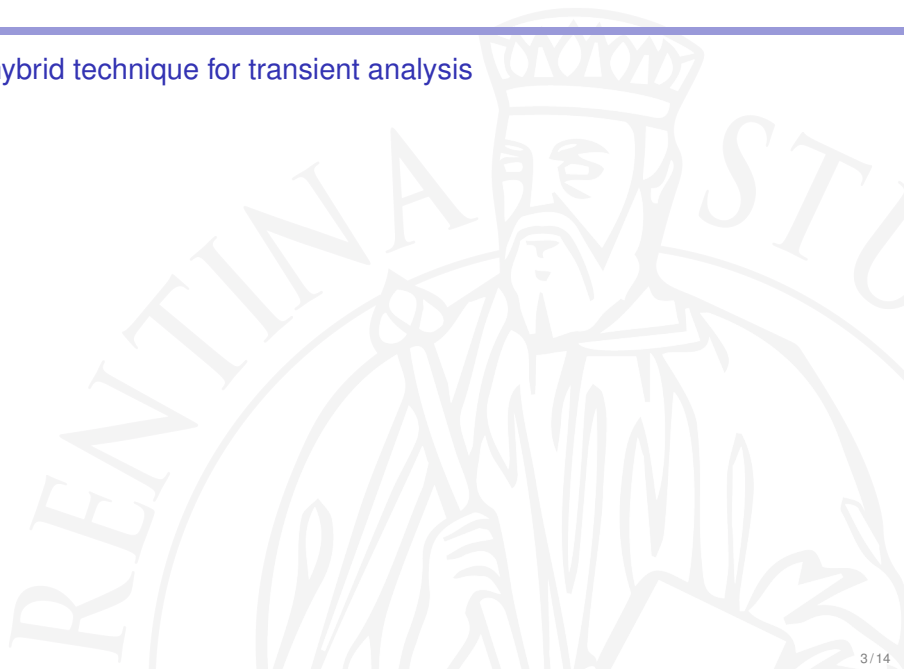
Analysis of assembly lines
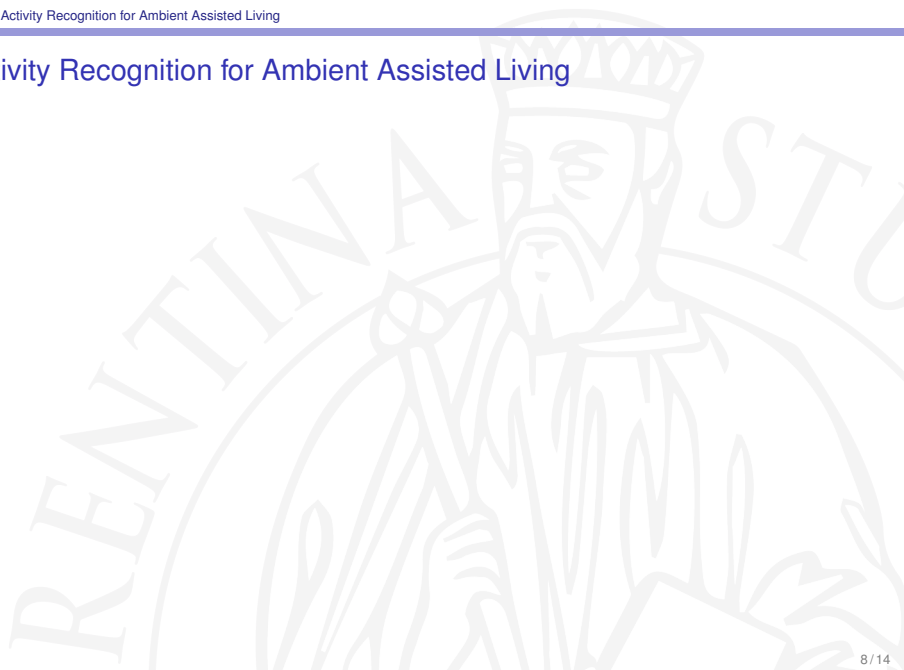
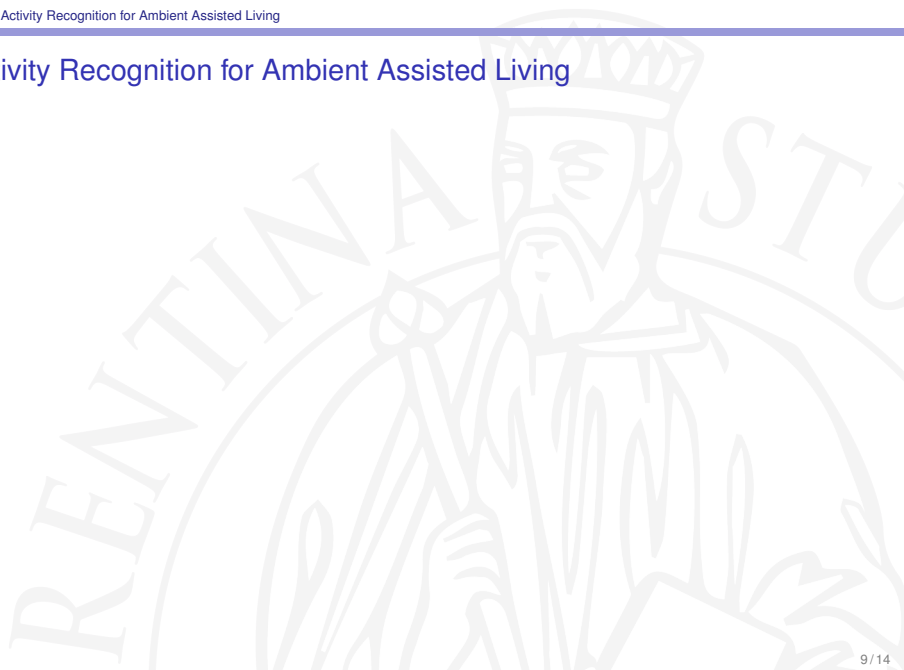# Analysis of assembly lines

Other projects

The LINFA project
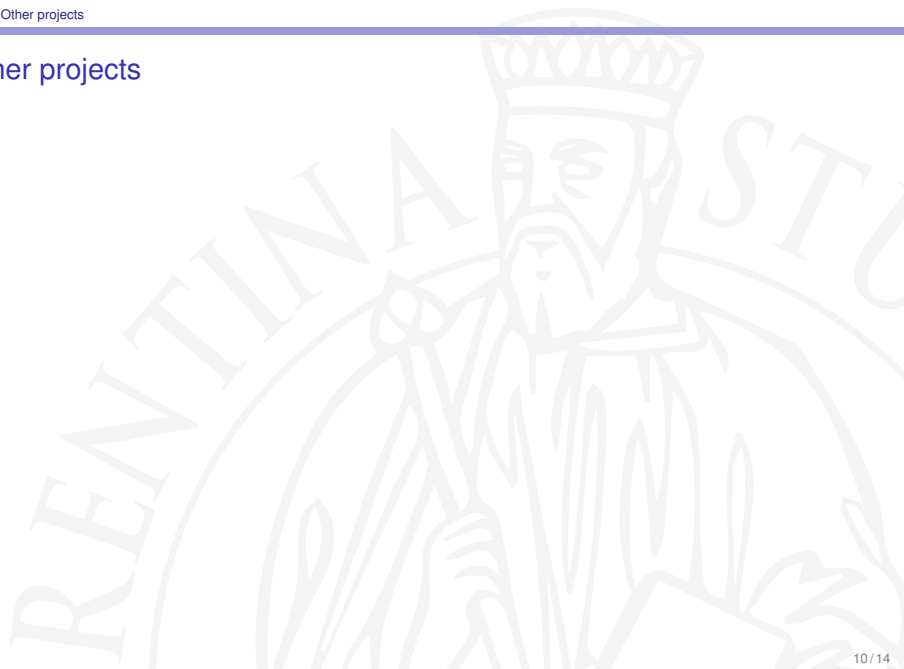
Activity Recognition for Ambient Assisted Living

Activity Recognition for Ambient Assisted Living

Other projects

Research plan for the next year

Research plan for the next year
Analysis of assembly lines

Introduction of buffering capacity

- ▶ with fixed/variable capacity
- ▶ so to model more realistic scenarios

Derivation of additional performance measures

- ▶ in the same compositional fashion
- ▶ e.g. production time of a certain product in the line
- ▶ or of the next N products

Derivation of a more educated *upper bound*

Research plan for the next year
The LINFA project

Model more aspects to refine the ward model

- ▶ introduce personalised healthcare protocols
- ▶ employ process mining techniques

State-space optimisation

- ▶ avoid state-space explosion
- ▶ investigate other tools
  - ▶ Storm

Research plan for the next year
Activity Recognition for Ambient Assisted Living

Refine model based AR
- ▶ exploit fuzzy logic to include support for continuous sensors
  - ▶ accelerometer/thermometer/...

Identify good AR datasets for AAL
- ▶ investigate the literature
- ▶ generate new datasets

In order to apply process mining techniques