

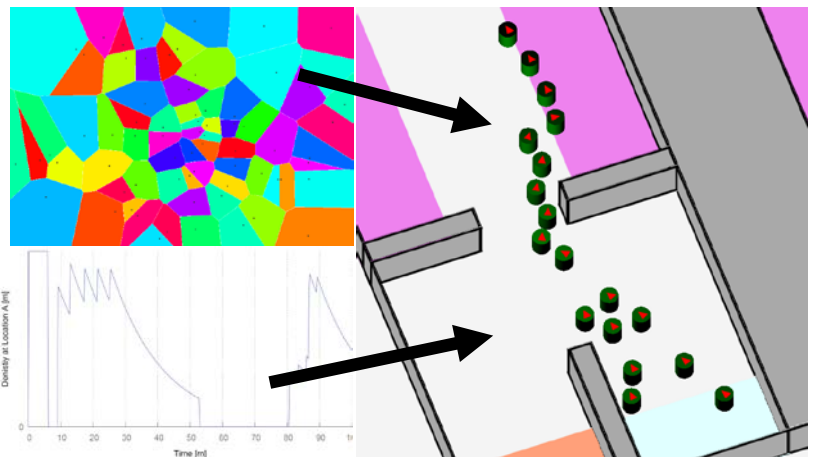
Software Lab:

Modeling: ★★☆☆☆
Mathematics: ★★☆☆☆
Programming: ★★☆☆☆

Density Ahead! – Pedestrian Measurements

Setting

In pedestrian dynamics, the measurement of the density is a crucial task in properly evaluating pedestrian simulation output data. Current research suggest (Duives et al. TGF 2015) that three different types of density measurements can be applied for pedestrian simulation data. These different types of density measurements have to be studied in detail and implemented in Java by the team.



Nice visualizations of the density measurements help to understand and analyses the pedestrian simulation results. Therefore, the team has to implement and extend a visualization software that shows one-dimensional plots and two-dimensional color maps of density information. The map and plot visualization use the density measurement results as input data.

In order to generate pedestrian simulation data, the team has to generate the simulation results by applying the chairs pedestrian simulator.

Task

- Study pedestrian density measurement methods
- Develop a software in Java to measure density
- Compare your approach to existing concepts
- Visualize results via JavaPlot and JavaFX
- Generate data by applying the Chair's pedestrian simulator

Supervisors

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