An accelerated-time simulation of baggage traffic in an airport terminal

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Abstract

ATISBAT is a model for the simulation of baggage traffic in an airport terminal that will be introduced in this talk. This model is based on the *GRAM* model, first introduced at *ACA'2011* (in the *Nonstandard Applications of Computer Algebra* session), that is detailed in the paper entitled *An accelerated-time simulation of car traffic on a motorway using a CAS* (to appear in the special issue devoted to this session of the journal *Mathematics and Computers in Simulation*).

The algorithms involved in the *ATISBAT* model have been implemented in a Computer Algebra System. On the other hand, a Java application that shows the simulation graphically is being developed.

Such an accelerated time simulation of baggage traffic can be used both as an aid during the terminal's design process (in order to optimize the conveyor belt network's topology) and for optimizing the use of an already built conveyor belt network.

The graphic interface will produce important visual information about the simulation. This graphical approach is very useful, since the effects of making any change can be visually shown immediately.

Key words: accelerated-time simulation, conveyor belt design, baggage traffic simulation, CAS