In addition to classical topics such as CAD or static simulations, design processes in structural engineering often deal with aspects related to the later usage of buildings. One important and not negligible point of view to be examined and to be considered deals with the suitability of buildings during emergency situations as the evacuation of people in case of fire or terrorist activities. Deriving a connection graph from any arbitrary CAD model to be used for shortest-path algorithms, the graph can also be coupled to cellular automata for the simulation of people streaming to the building’s exits for evacuation. These kind of simulation reveals bottlenecks of the architectural design. As geometric alterations might interfere with the building’s statics, for instance, by integrating aspects of people’s evacuation into a CSCW framework global consistency between all experts and all different tasks can be assured.
entries: