**The study of crowd movement: using experiments to get insight into pedestrian behavior**

Winnie Daamen, Delft University of Technology

This presentation aims to give insight into the fundamentals of pedestrian walking behavior. One of the most important characteristics of pedestrian flow is the capacity; queuing occurs when the demand is higher than the supply (capacity). We will introduce which factors, and to which extent these factors influence capacity. The required data has been collected in large-scale laboratory experiments. These experiments also show the self-organization phenomenon, which considerably increases flow efficiency. Self-organization occurs in various shapes, ranging from lane formation to the faster-is-slower effect. However, limitations occur to the self-organizing abilities of pedestrian flow operations. Then, the traffic state turns into blockades and turbulence, and the production (outflow) of the pedestrian is reduced. We will end by showing which phenomena should be considered in models, and which types of models may or may not be capable of doing so.