# CROWD CONTROL

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The interpretation of collective human behavior represents a great challenge for sciences. Here we discuss an emerging approach to this problem based on methods of statistical physics. We demonstrate that in cases when the interactions between the members of a group are relatively well defined (e.g, pedestrian traffic, network formation, synchronization, panic, etc) the corresponding models reproduce relevant aspects of the observed phenomena.

Among several realistic situations weinvestigate systems mimicking peple trying to leave a dangerous location during panic (http://angel.elte.hu/~panic). Our results suggest practical ways of minimising the harmful consequences of such events and the existence of an optimal escape strategy, corresponding to a suitable mixture of individualistic and collective behaviour. In addition, another kind of collective human behaviour - the synchronization of expressing satisfaction of audiencies (e.g clapping) - will be described.

The above results have been obtained in collaboration with A-L.Barabási, A. Czirók, I. Farkas, Z. Néda and D. Helbing

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