

Dangers in Coordinated Crowd Movements

- Phenomenon during music festivals: “**collective crowd motion**”
- Similarities to **2-dimensional gas**: 2 degrees of freedom,...
- **Cellular Automaton** also a possible model
- Additional considerations: (not included in gas model or automaton model):
 - **Collective decision** to perform circle pit
 - **Long-distance** influences
- **Which positions are dangerous?**
 - Discontinuity in dp/dx
- **How dangerous is a collision?**
 - Relative momentum
 - Velocity and acceleration
- **Is it safer to take part?**
- **Comparison to occurred accidents**

