Biometric architecture

Media Art & Design

Spatial Information Lab

Lecturer: Marcel Karnapke

Usage of biometric data simulating human activities, flows and actions to recreate virtual scenarios and integrate them into a process of design.

The body motion will buy used to define boundaries or flow patterns that could help to understand space within time, and likewise to analyze design challenges in a different way.
A phenomena will be produce by defining principles of physics, recreating a set of events developed through the manipulation of different rules of physics. Thus, the body will trigger this scenarios in a unique way.

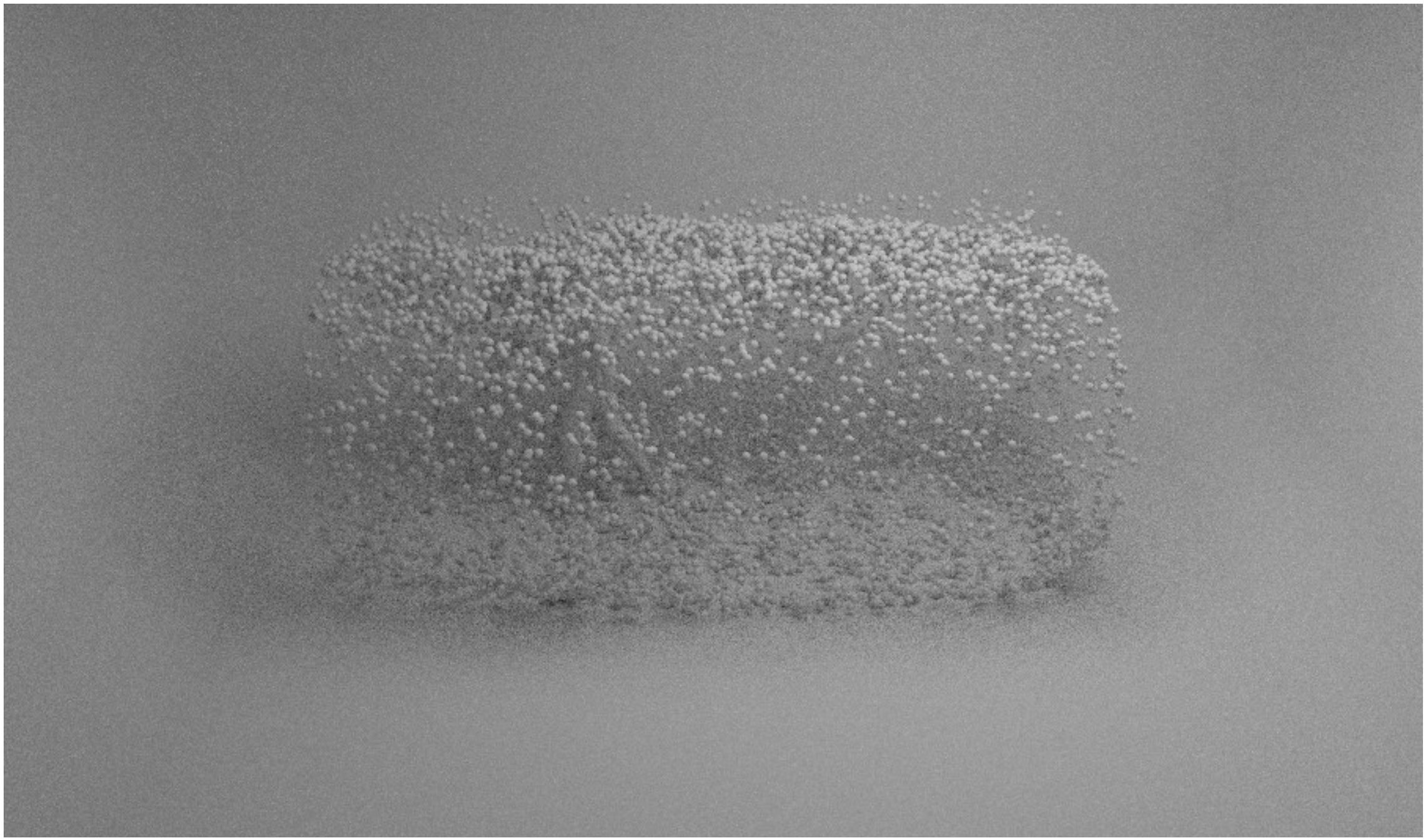
Using Particles:

The rules to set up experimental scenarios are the ones offered by particles systems, establishing variants in forces, events and properties.
In this directions, the body could work as an erosion agent to hollow space in virtual matter, or as a force that will expand or twist around its own core the particles that occupy certain area, as well as the encounter of forces from many bodies in the space.

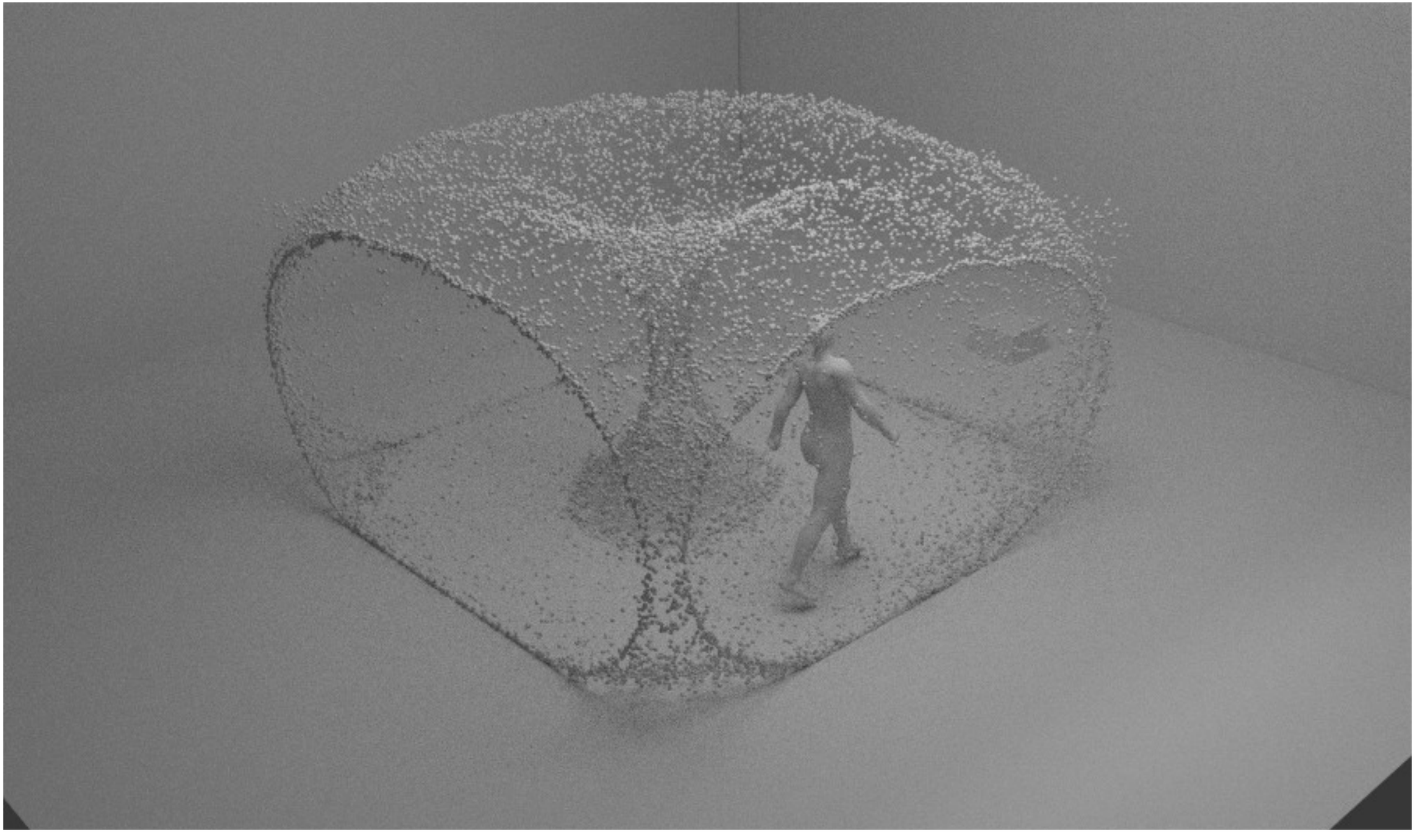
Walking straight & in circles

The basic activity for body displacement is to walk. In this experiment the body hold a force that push every particle 1.5 meters away from its core, defining areas of circulation.

Walking straight



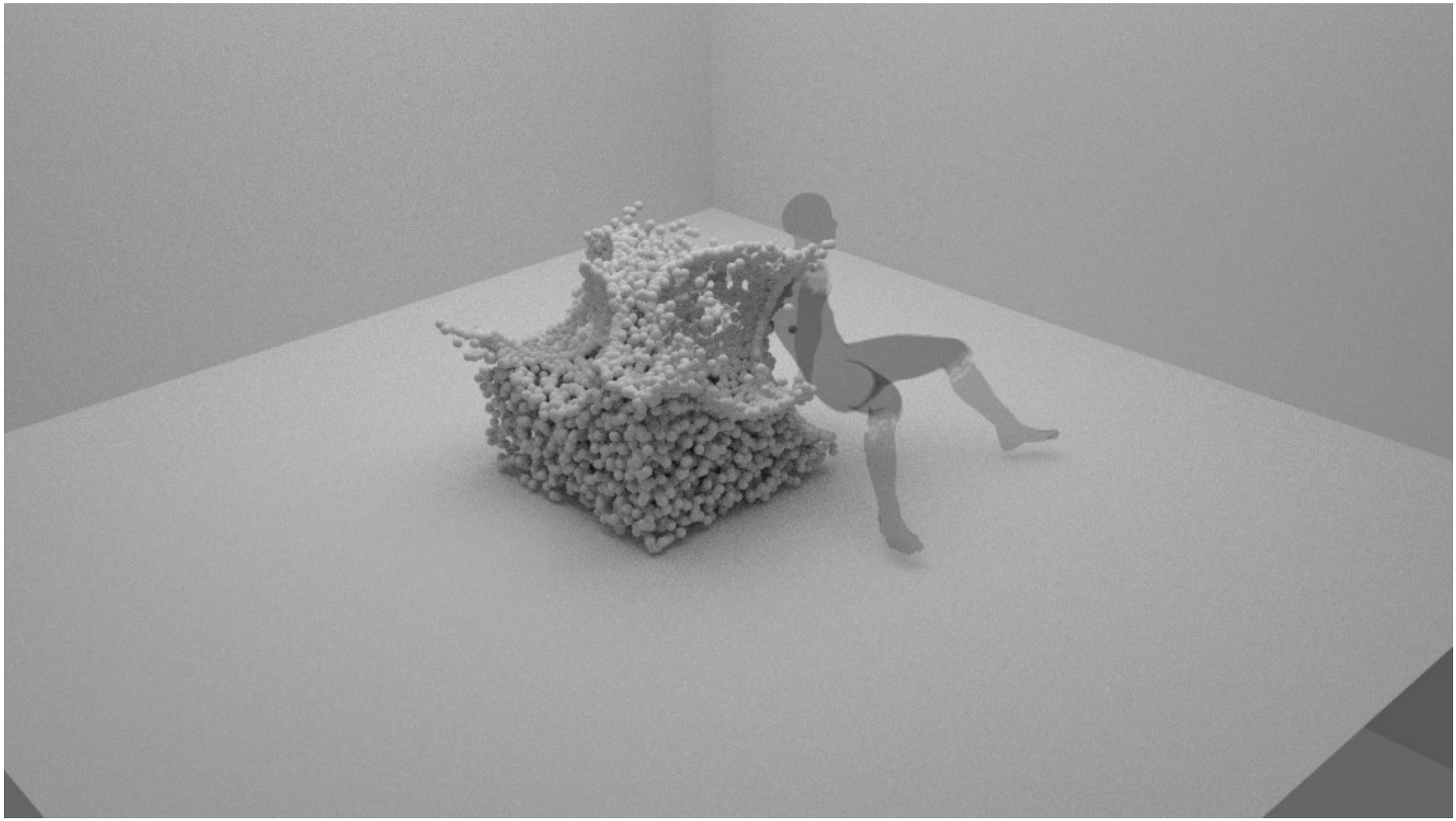
Walking in circles



Body postures

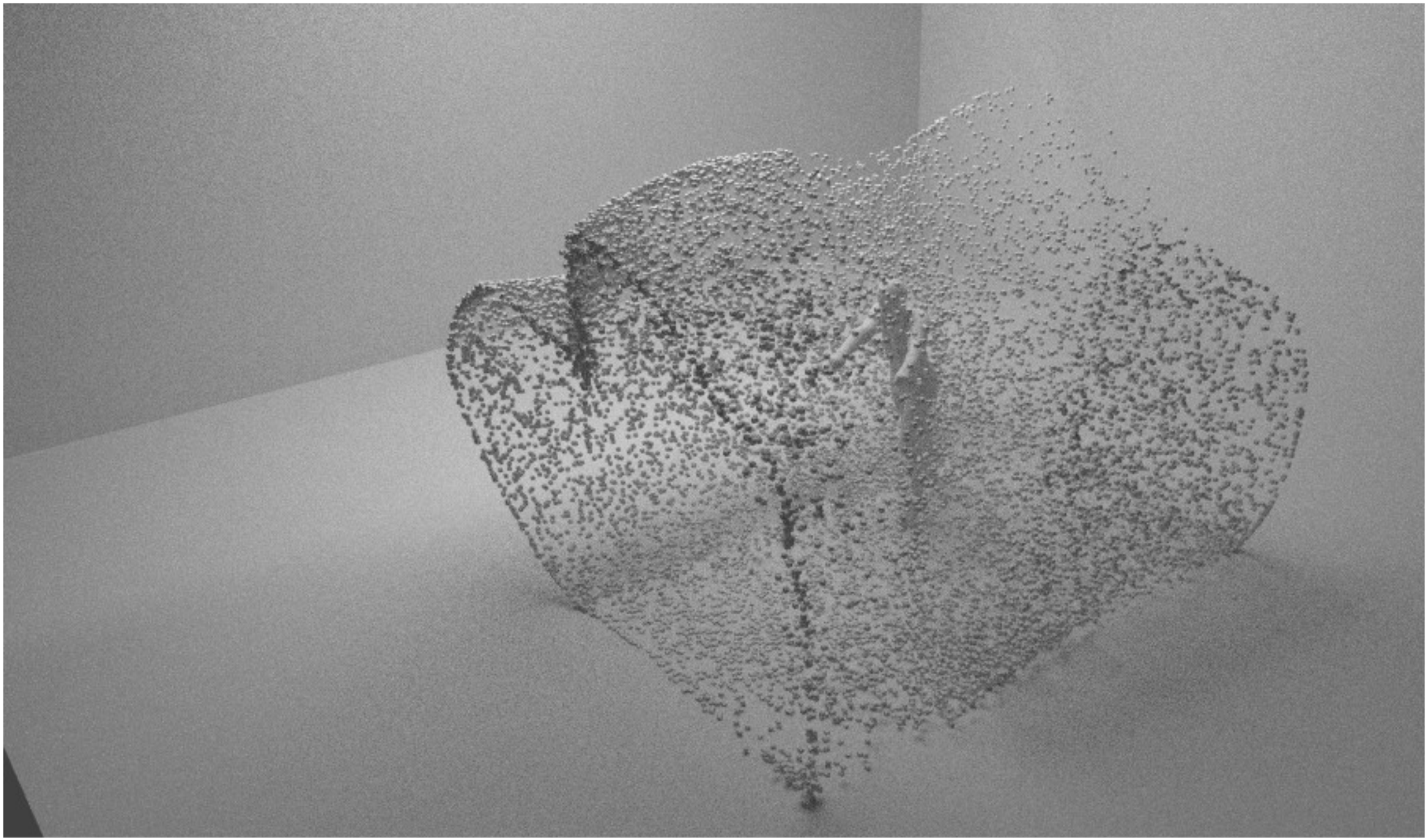
Base on ergonomic principles, the shape of the body collide with a volume of dense particles to print body postures on it.

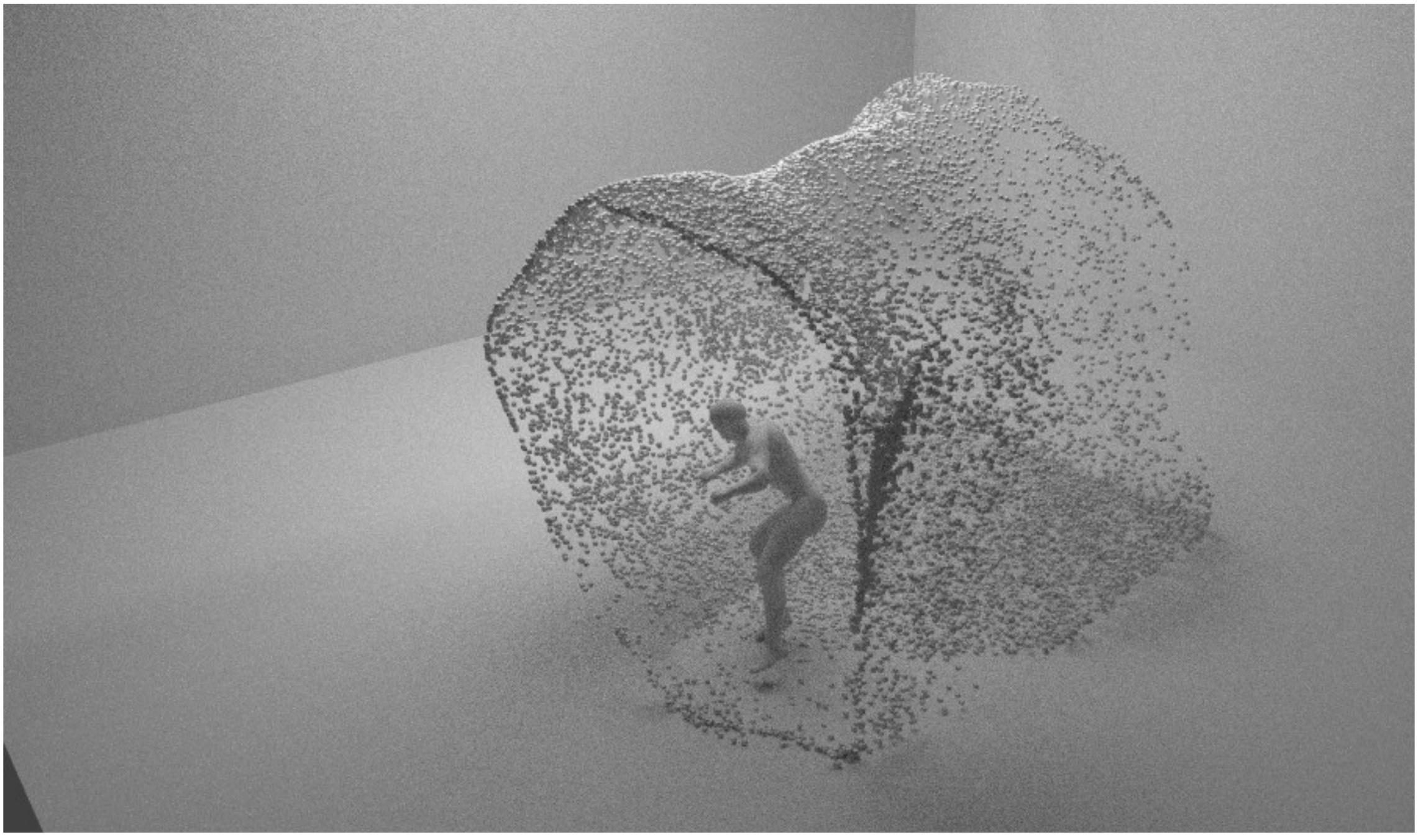
Posture prints

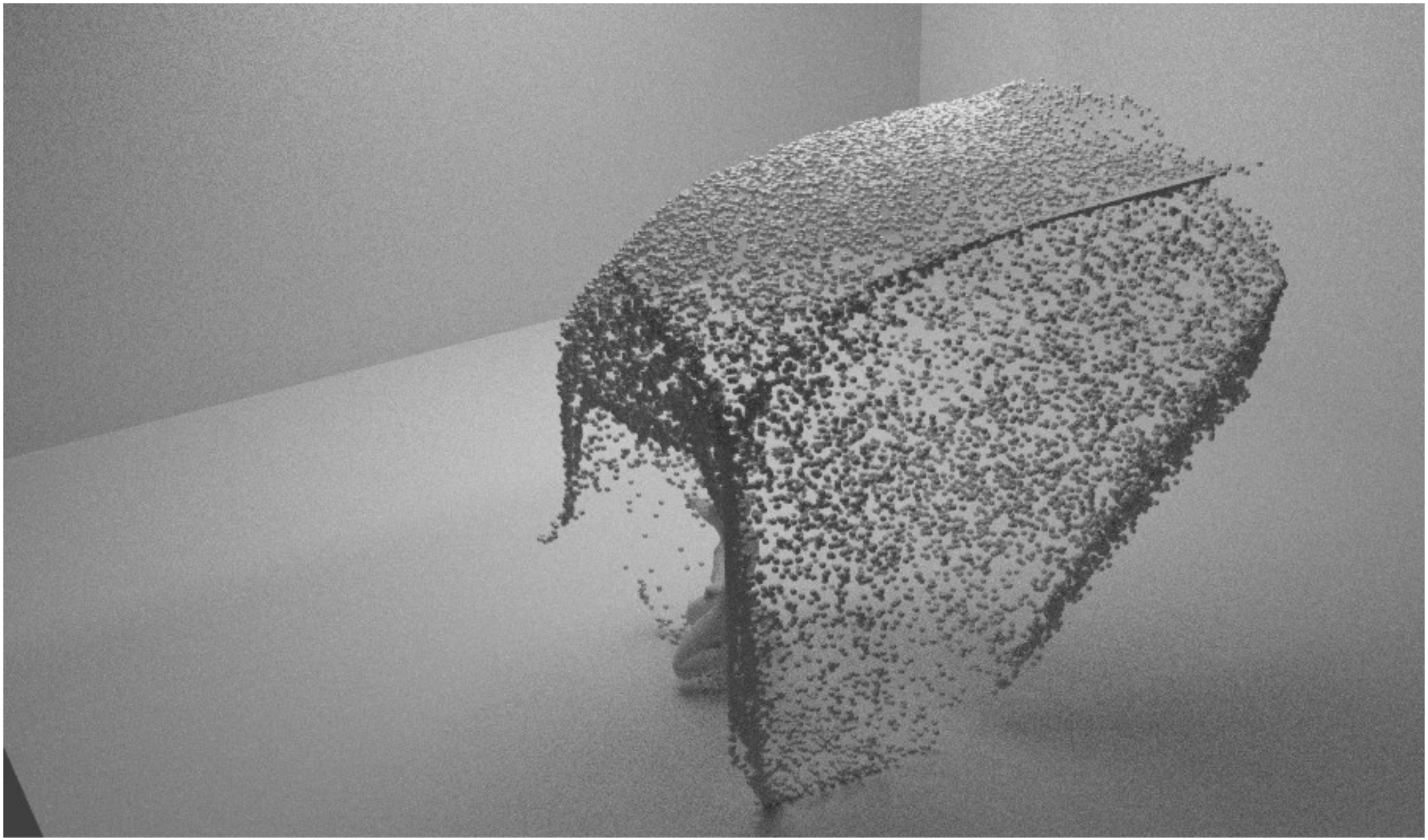


Vortex force

The particles are manipulated around the body through a vortex force, surrounding it with many different shapes or shelters over time.

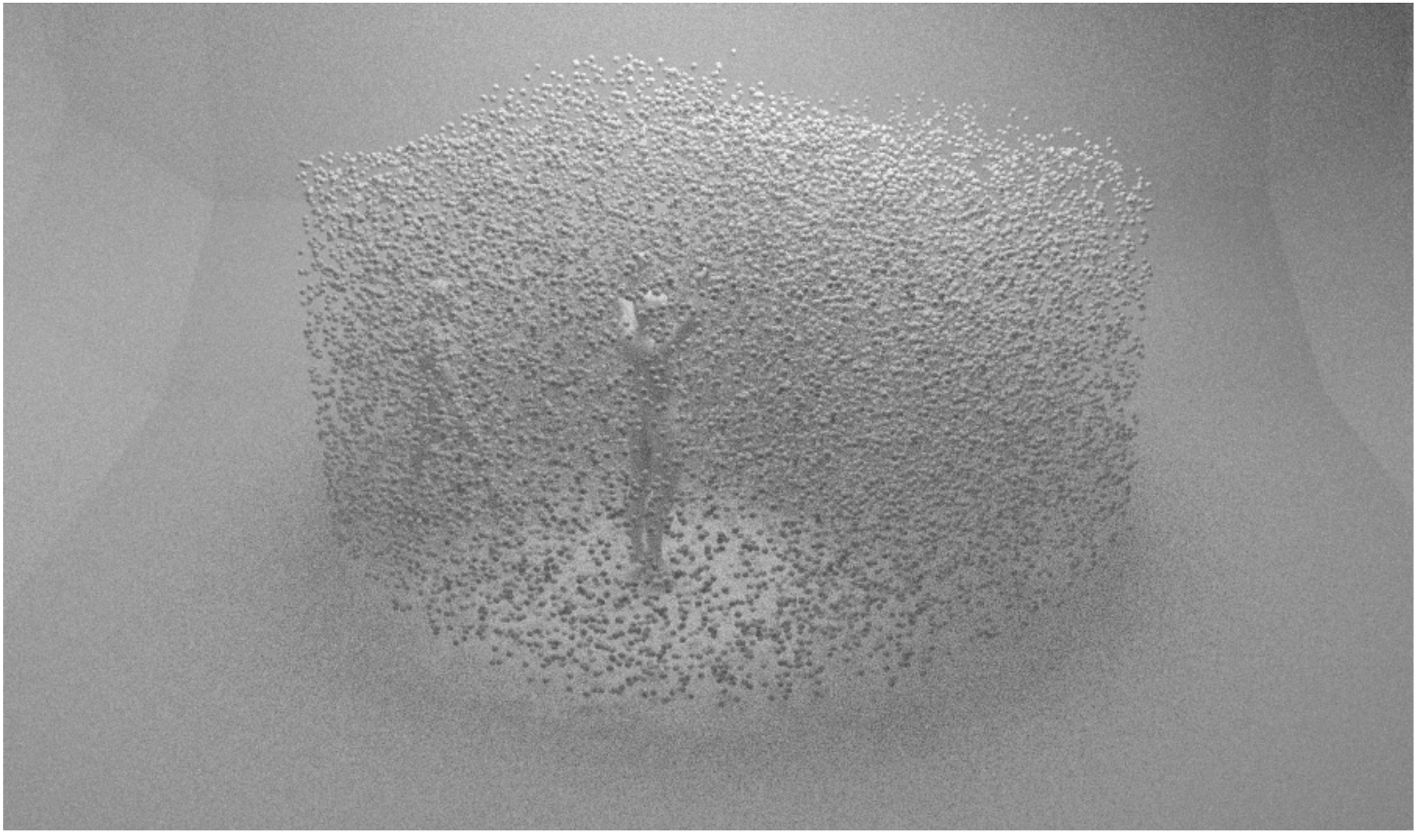






Forces in two actors

The particles are manipulated around the body through different forces located on each participant, the forces power decreases over time.



Video link

https://vimeo.com/152612766