Particles
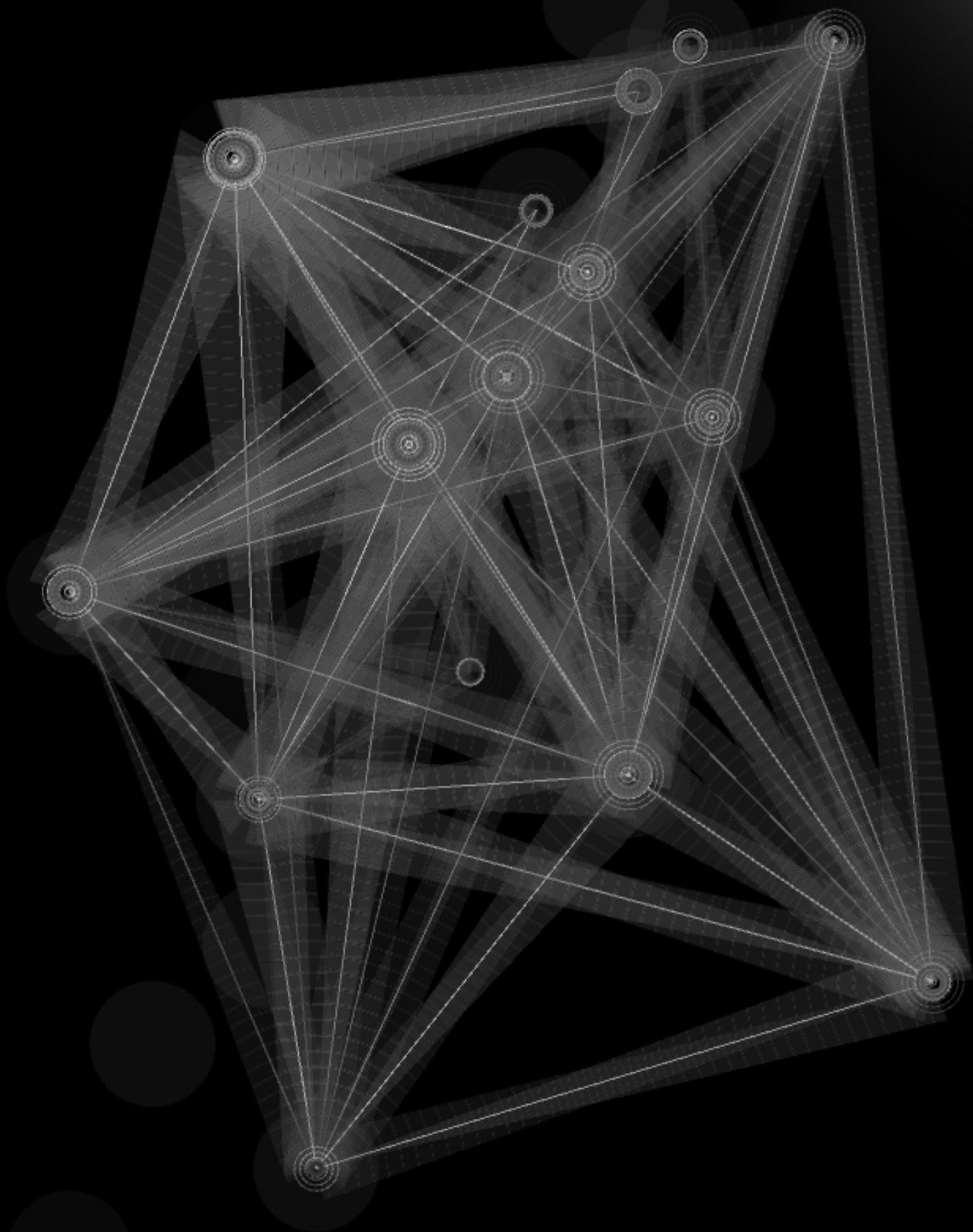
Particles (2017)

Form
Interactive generative audiovisual Installation for computer, video projector, sound system and kinect cameras.

Description
The Particles installation work is based on a simulation of particles that can interconnect and start to sound when there are visitors entering the area in front of the projection. It reflects the phenomenon that nothing can be observed without influencing the observed and that one particle alone is not worth that much.

Interconnected particles build a dynamic sonic system whose parts influence themselves mutually through various attracting and compulsive forces and audio dependent processes. This leads to a constantly changing and emergent behavior.

Inside connected particles audio signals are circulating, while the particles serve as dynamic level controllers and the connections delay the signal by varying times, creating in effect a feedback audio network.

The audience can interact with the installation when they are between the projection on the wall and the two Kinect cameras mounted about 4m from the wall. The concept of the user interaction is a kind of negative interaction. Only non-moving people slowly appear on the projection resembling an aura. Within such auras particles can build connections and start sounding. Slow movements influence the networked particles but moving too fast lets the networks break apart and the sound will fade out.

There's no limit on the number of users. The more users, the bigger the networks can grow.

Setup
The room should be at least 3m high with a smooth and light wall at least 5m width for the projection and at least 60 square meters area for the ground.
A short throw projector is mounted under the ceiling to reduce shadows of the audience on the projection. The projection should reach down to the floor and should have a height of 3m.
The two Kinect cameras are mounted 4m from the wall and 1,5m above the ground.
The two loudspeakers are placed to the left and right of the projection and about 1,5m above the ground facing the audience.
A dim ambience light should be provided because the projection is dark when there is no audience present.

Pictures