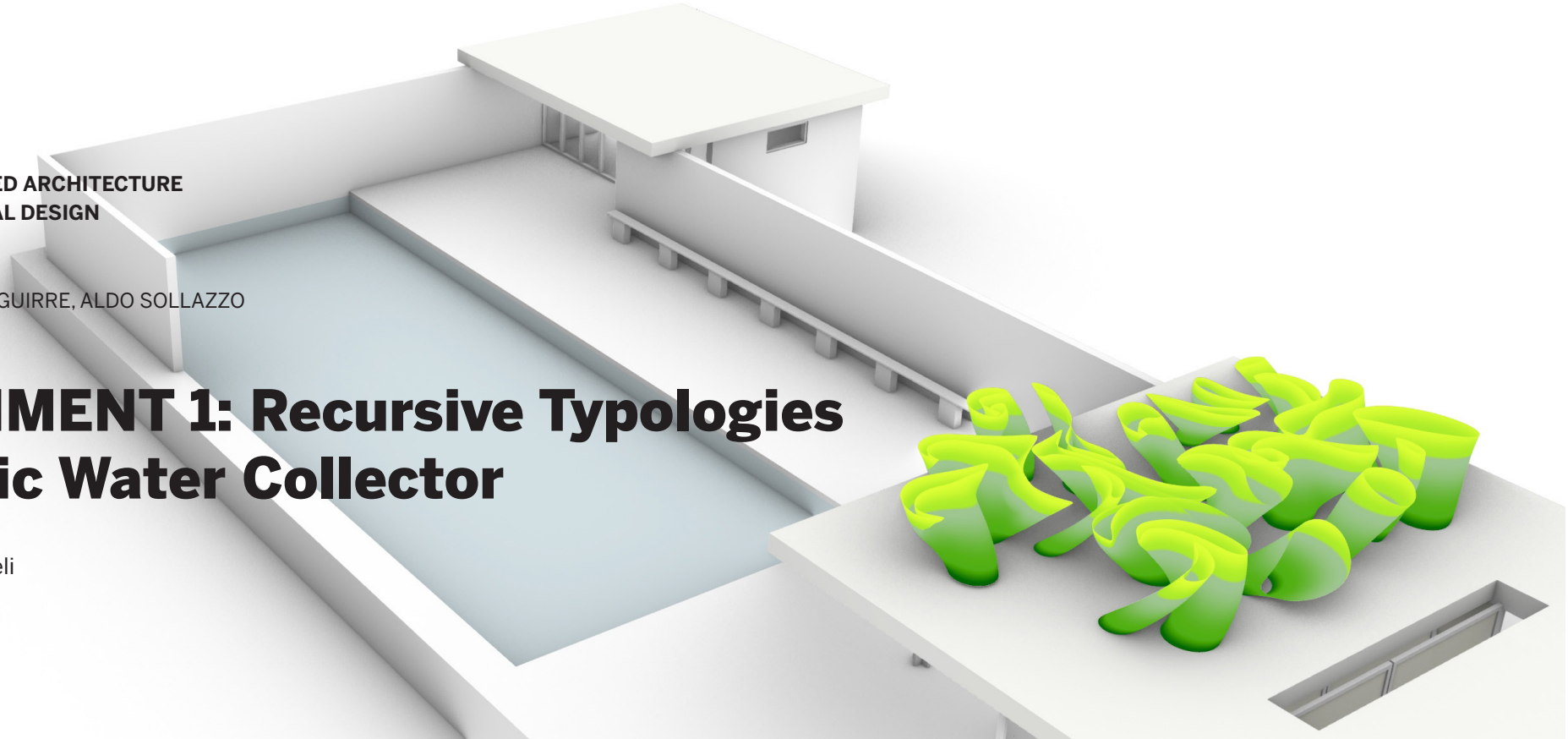
Institute for advanced architecture of Catalonia

MASTER IN ADVANCED ARCHITECTURE
SO.3 COMPUTATIONAL DESIGN
2017/2018

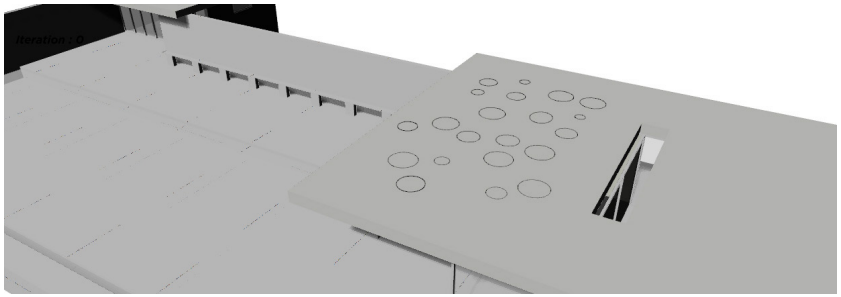
TUTORS: RODRIGO AGUIRRE, ALDO SOLLAZZO

ASSIGNMENT 1: Recursive Typologies
Magnetic Water Collector

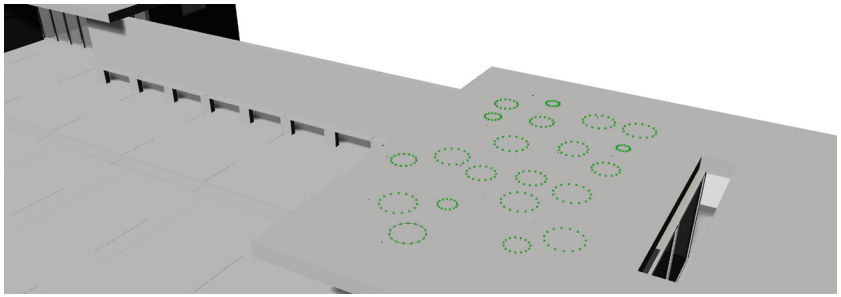
M.Amin / Ziaie Bigdeli



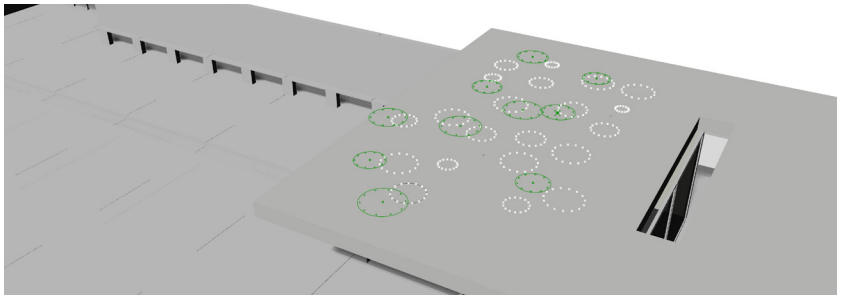
The aim of this project was to create a system on roof which can collect water during rain.
The Idea is based on some Algeas on rooftops which can grow during the seasons in bowl Like shape in order to collect water inside them and connect them to the mechanical pipes of the pavilion. The shapes of the algeas can generate in each iteration based on wind , tempreture and rainfalls.
In order to visulize the shape I decided to use magnectic field with some agents and move them on some random vectors in Z direction so the shape can change each time of the iteration based on rule of magnetic fields.



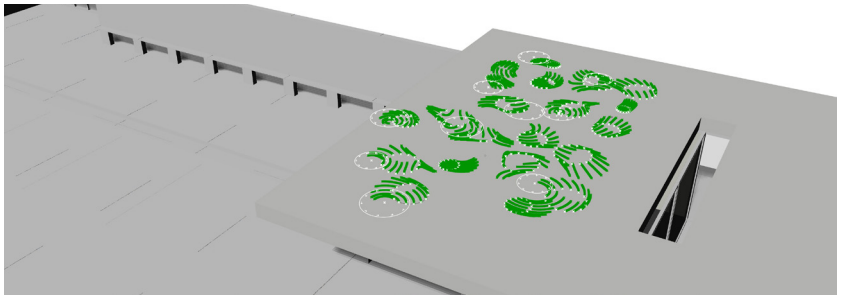
1. generate random cirlces on roof with different Radiuses



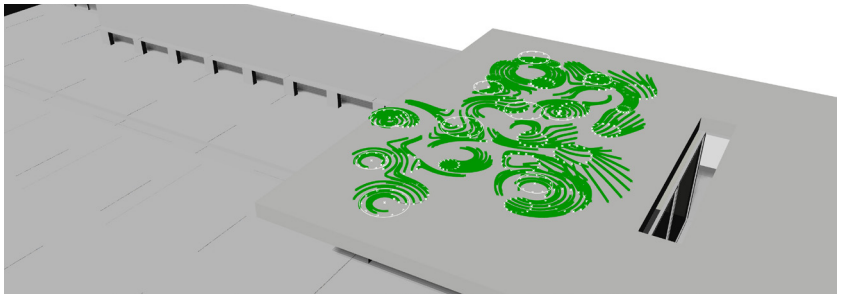
2. divide each curves with several points



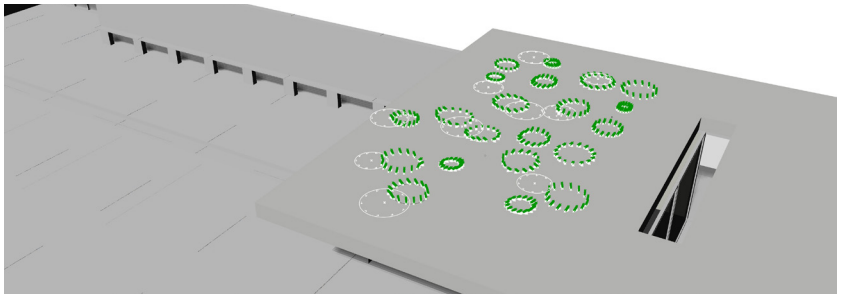
3.connect the point to Anemone input
4. generate several points on roof
5. give each of the points point charge and point force Rule



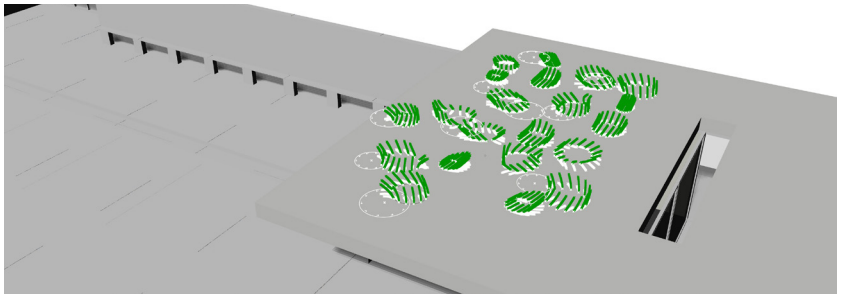
6. make the divided points move on magnetic field
(iteration 20)



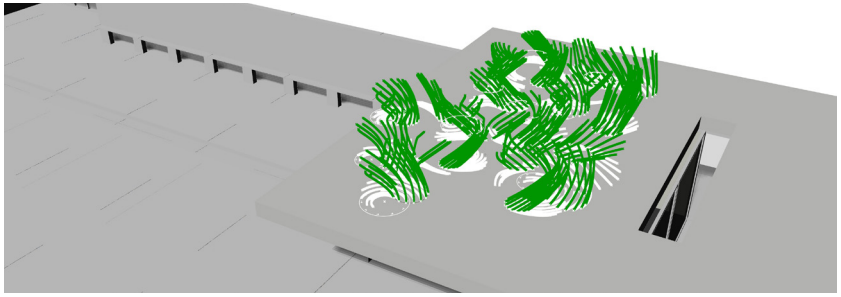
7. Moving points in the magnetic field based on Tensor field and Y vector (iteration 20)



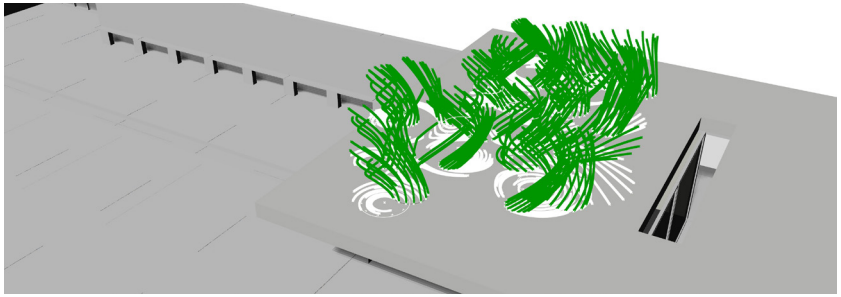
8.Moving each iteration on Z axis (Iteration 10)



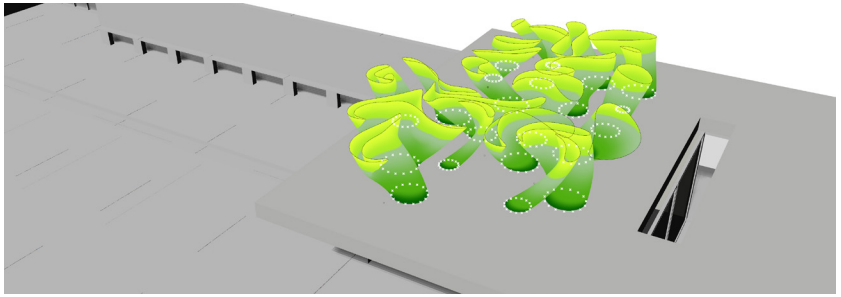
9.Moving each iteration on Z axis (Iteration 40)



10.Moving each iteration on Z axis (Iteration 90)



11.Moving each iteration on Z axis (Iteration 120)



12. Mesh Loft the points (Iteration 120)

