





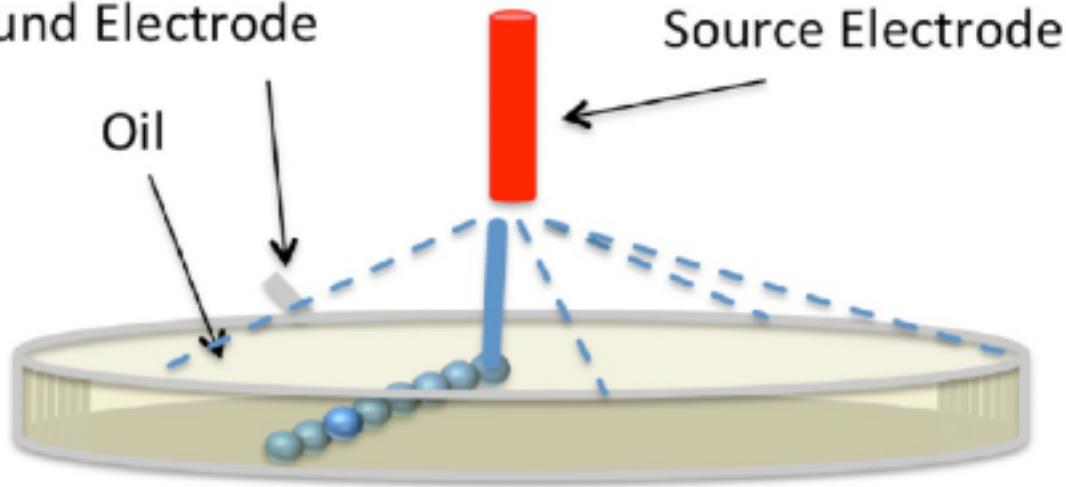
Radboud University Nijmegen



Ground Electrode

Source Electrode

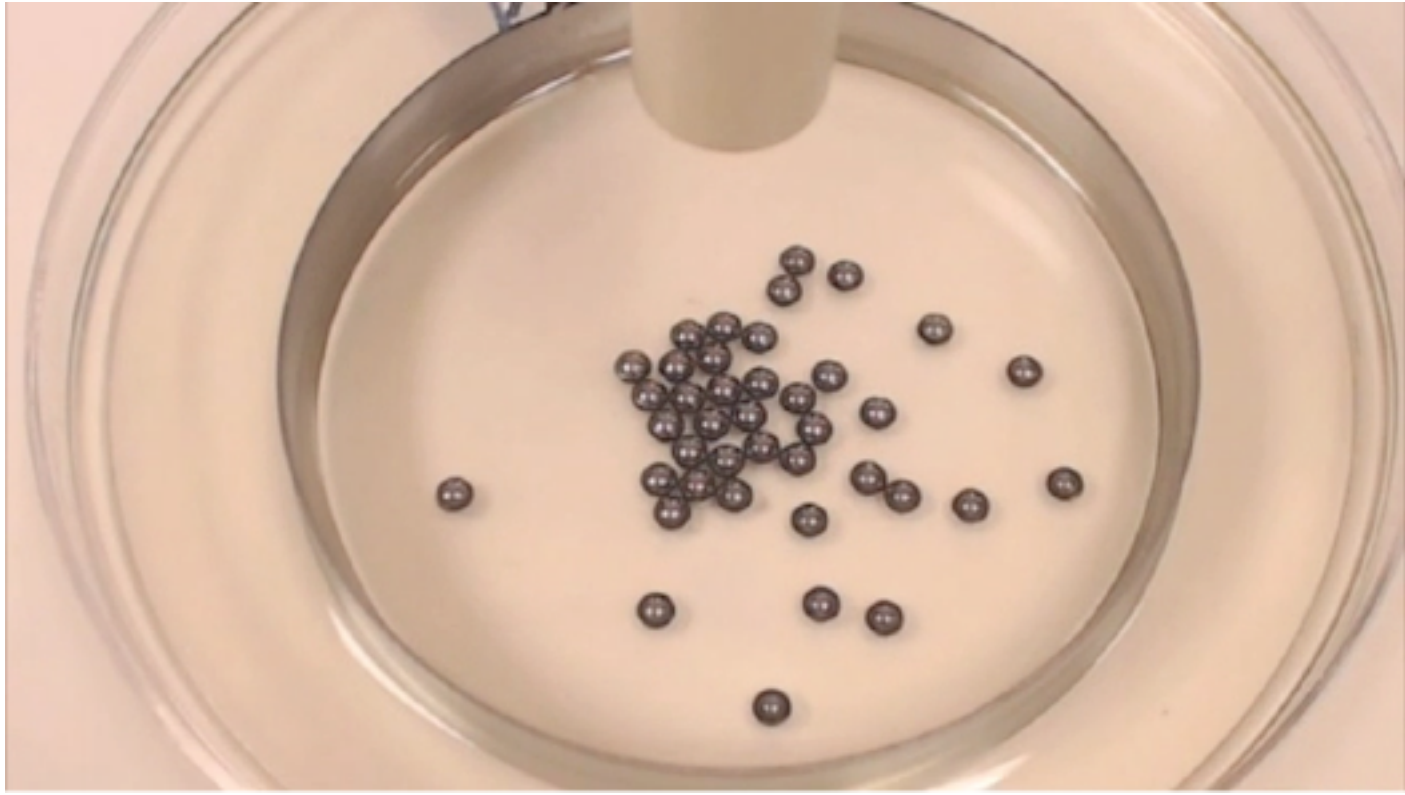
Oil





Complex behavior (physical) principles & laws (bottom-up)

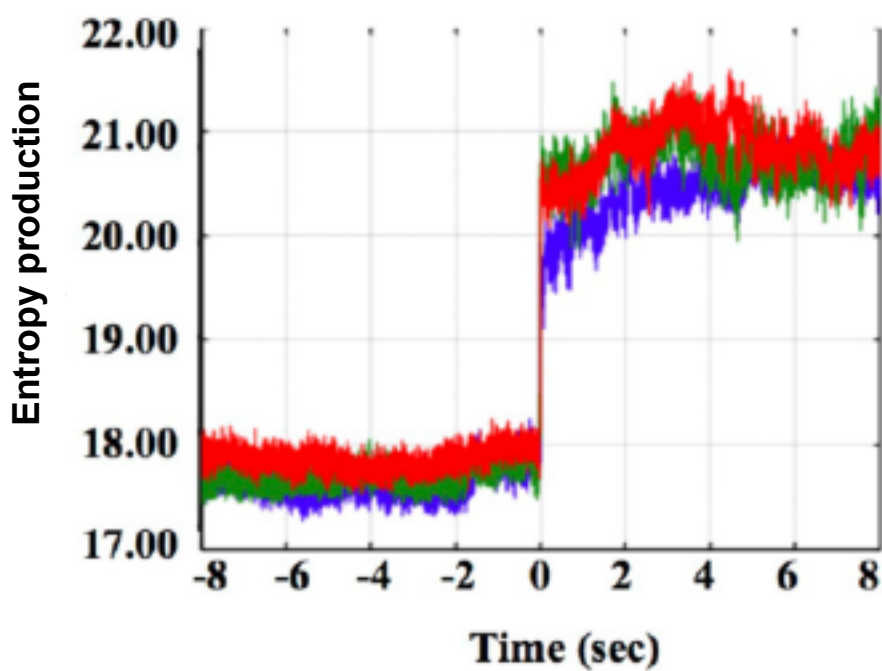
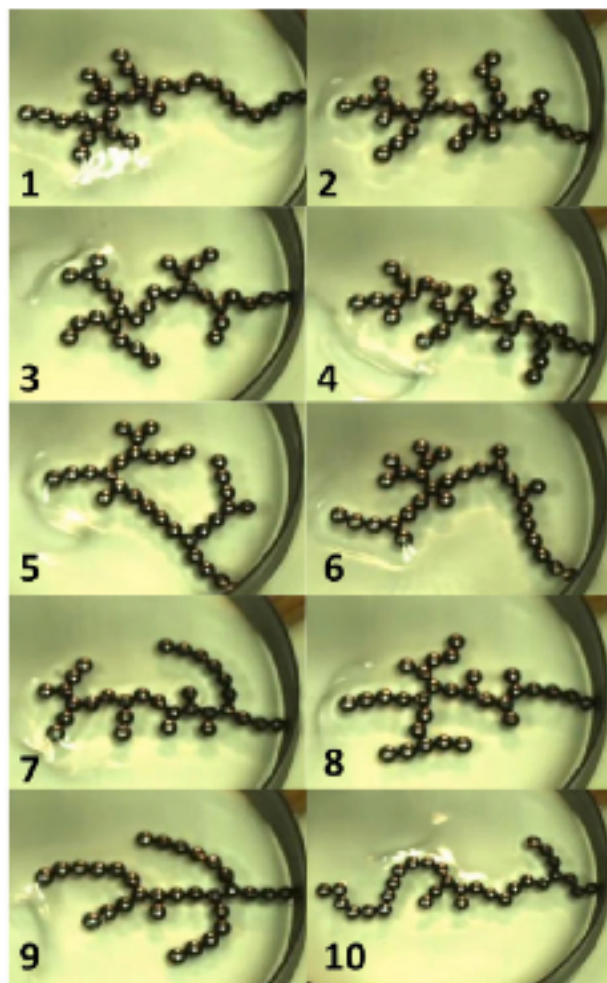




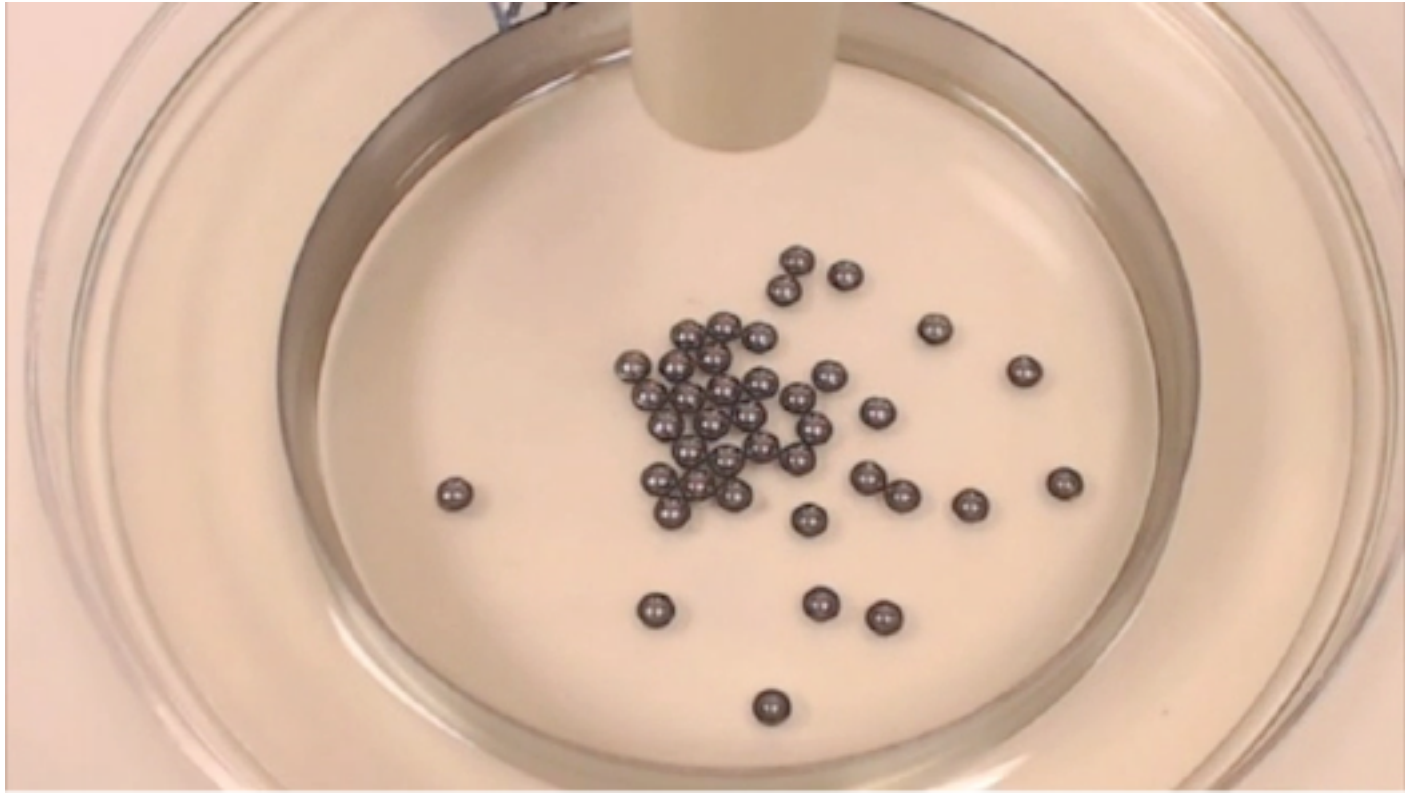
**self-organisation:**

**Tree formation**





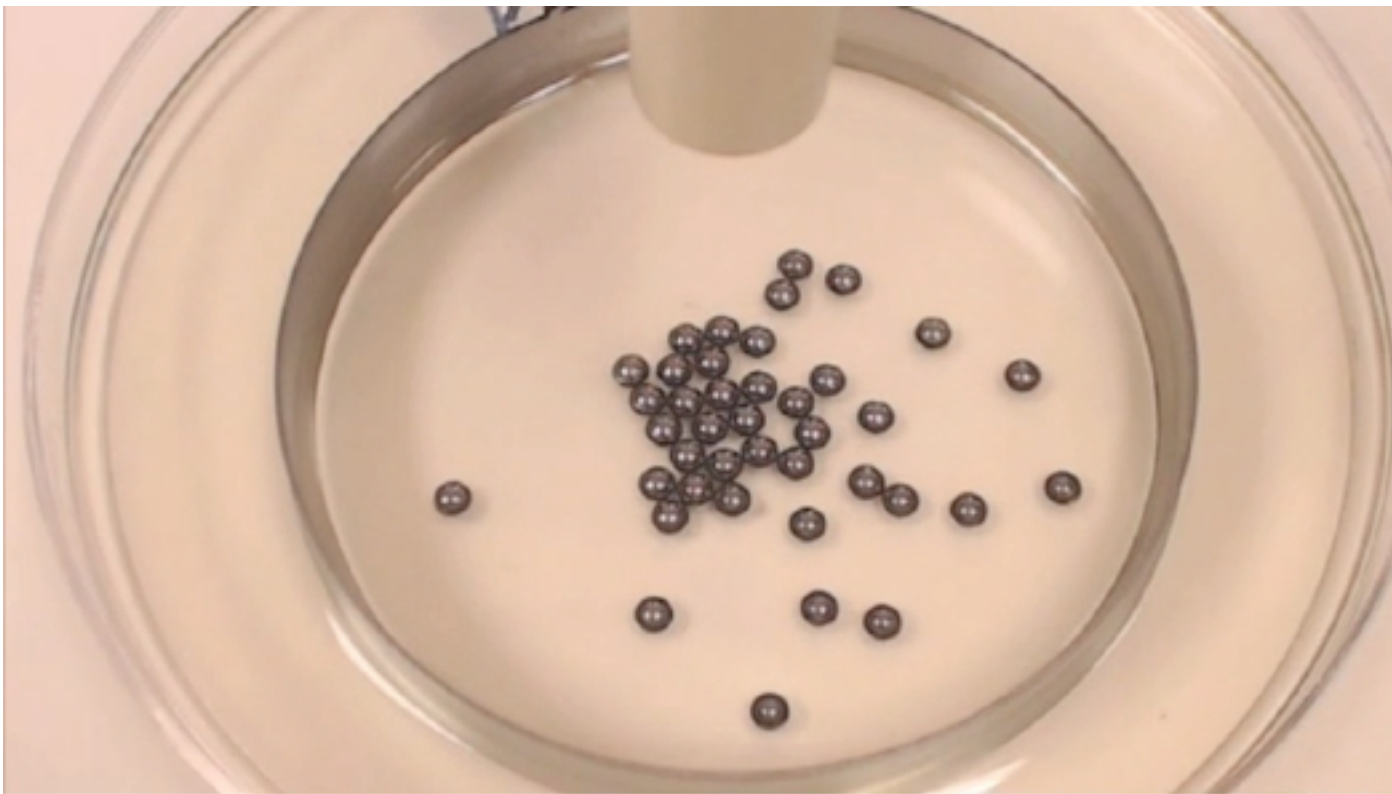
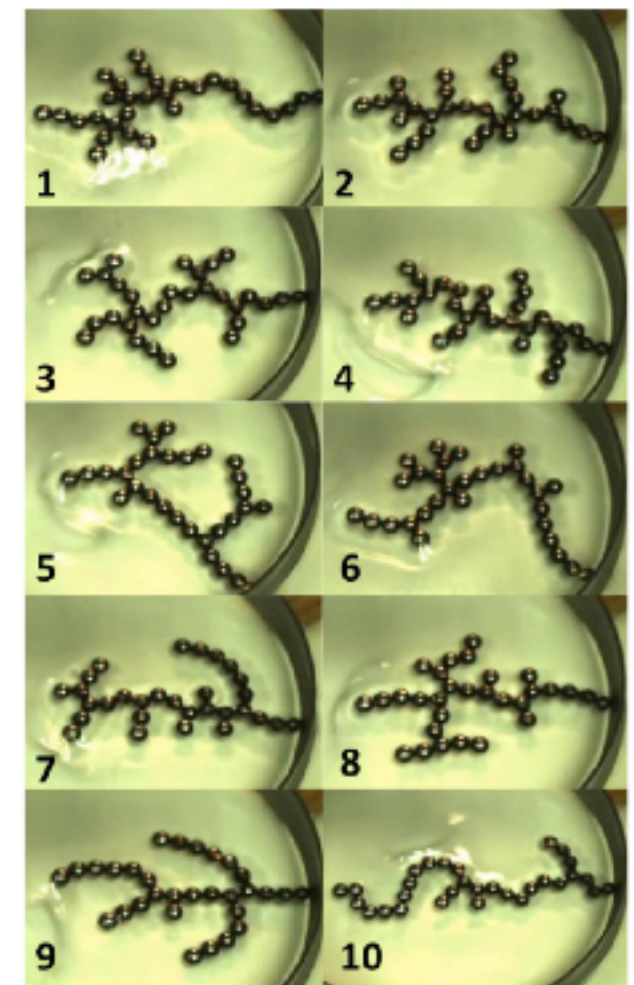
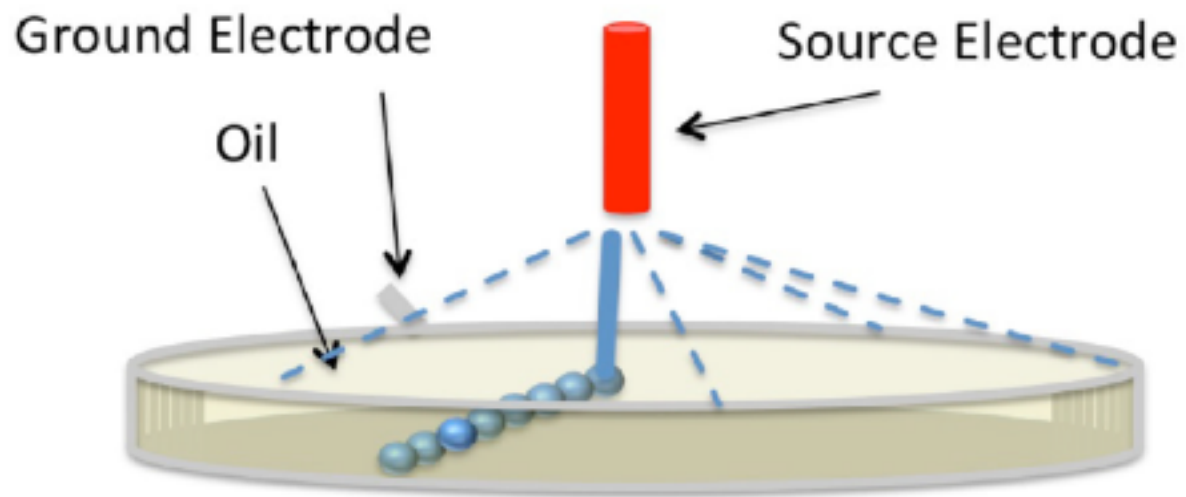
Kondepudi D, Kay B, Dixon J. (2017). Dissipative structures, machines, and organisms: A perspective. *Chaos*, 27(10), 104607.



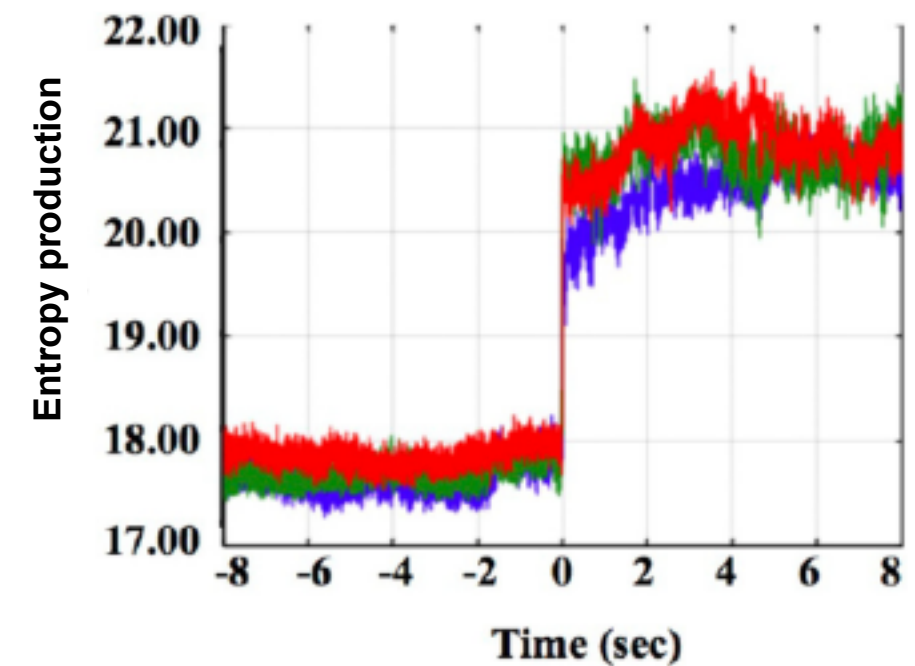




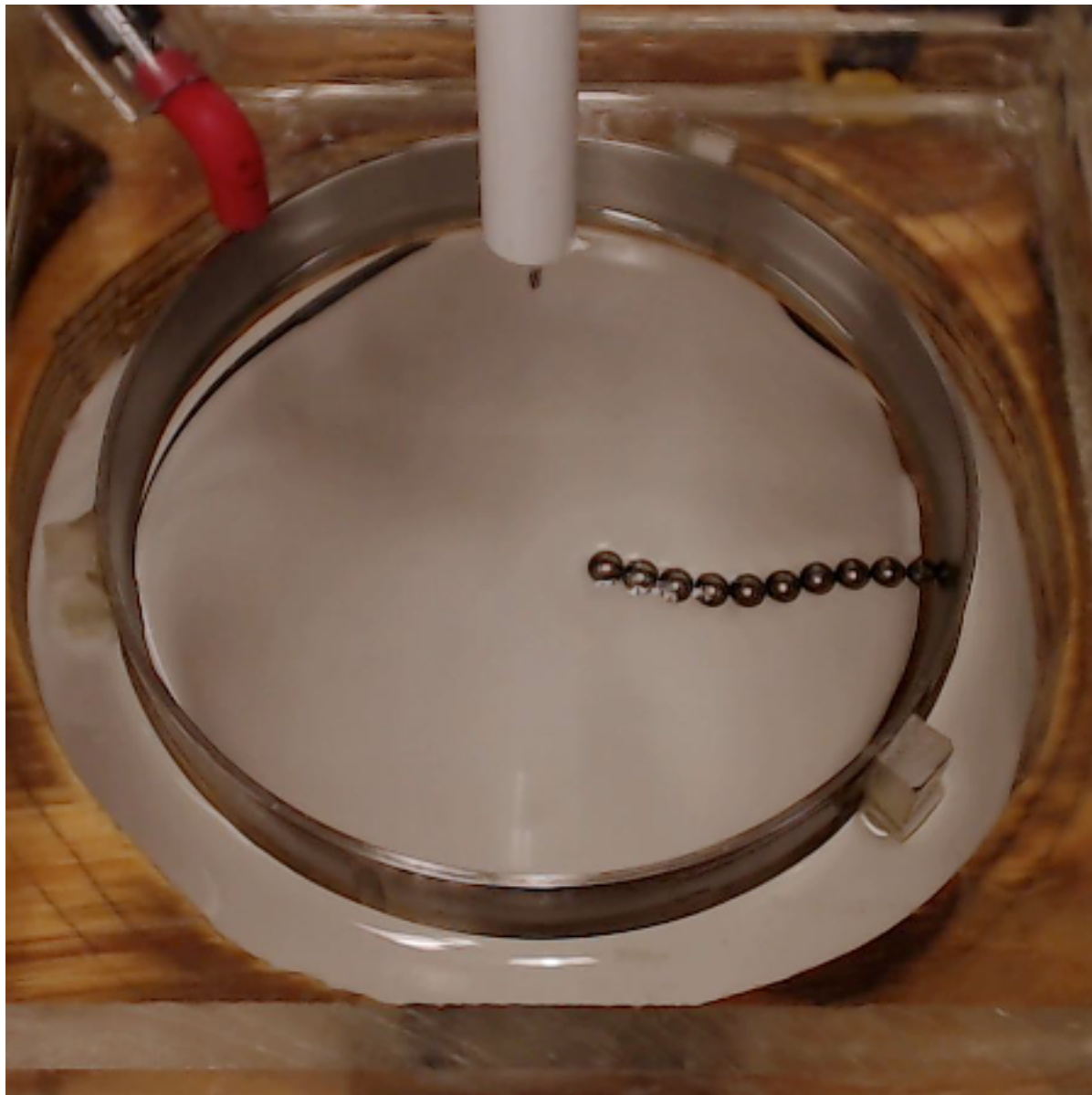
# Complex behaviour from (physical) principles & law



## self-organisation: Tree formation



# Complex behaviour from (physical) principles & laws (bottom-up)



**self-repair:  
Resilience to perturbation**

