# The origin of biological individuation

This short presentation will focus on the origin of life, as if its emergence could be the result of some theoretical condition, and not simply an historical-empirical fact. Following Gilbert Simondon, we will understand life as biological individuation, as if it could be the result of a recursive procedure (Miquel/Hwang, 2016; Miquel/Hwang 2021). We will summarize what such a recursive procedure could be, and what are the consequences, concerning the question of the origin of life. More particularly, we will insist on two central points: the relation between irreversibility and entropy in the new thermodynamics of physical systems out of equilibrium (Crook 1999, England 2013, 2016, 2021); the coupling between autocatalytic sets and metabolism as it could activate a thermodynamic work and constraint cycle (Kauffman 2019).