

# Minicourse: Multiscale behaviour in selection-mutation systems

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# Scenario

$$t_N \rightarrow \infty \quad , \quad t_N - \frac{1}{\alpha} \log N \rightarrow -\infty$$

**Small time stretch**  $0 \rightarrow t_N$  **droplet formation**

Poisson many type-2 sites

**Long time stretch**  $t_N \rightarrow T_N = \frac{1}{\alpha} \log N$ ,  **$\varepsilon$ -Emergence**

type-2 global density at least  $\varepsilon$

**Small time stretch**  $T_N \rightarrow T_N + t$  , **fixation**

type-2 global density reaches  $1 - \varepsilon$

**Long time stretch**  $T_N + t \rightarrow \infty$  , **dominance of type-2,  
neutral evolution**

