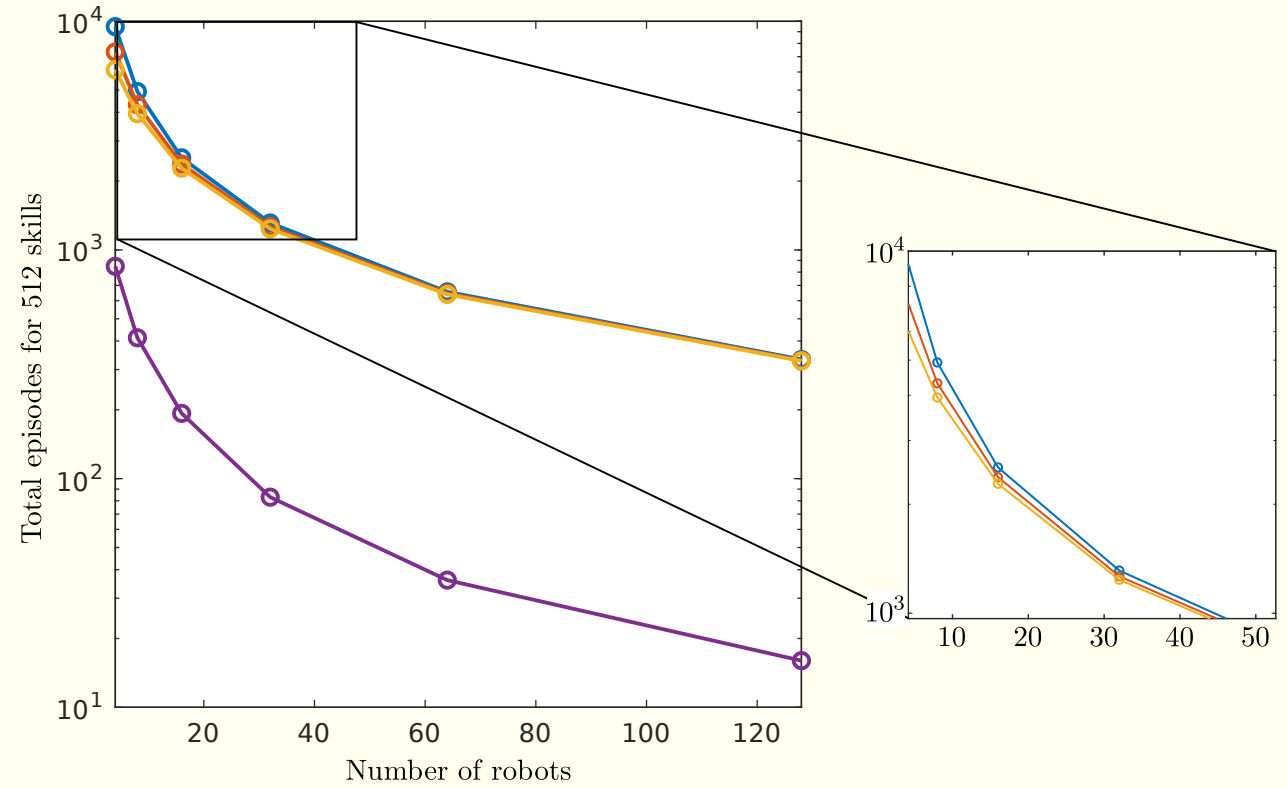


Knowledge dynamics:  $\dot{\bar{\sigma}}_j^{(CL)} = - [f(\kappa; \alpha, \eta, \mathbf{B}, N_r) + h(\bar{\sigma}; \mathbf{B}, \mathbf{\Gamma}, N_r)] \bar{\sigma}_j^{(CL)}$

The equation is annotated with the following terms:

- $\alpha$ : Agent learning gain
- $\eta$ : Intra-cluster transfer gain
- $\mathbf{B}$ : Inter-cluster similarity gain
- $\mathbf{\Gamma}$ : Inter-agent transfer gain
- $N_r$ : Number of agents



- Isolated learning ( $\eta = 0, \beta = 0, \gamma = 0$ )
- Incremental learning ( $\eta \neq 0, \beta = 0, \gamma = 0$ )
- Transfer + incremental learning ( $\eta \neq 0, \beta \neq 0, \gamma = 0$ )
- Collective learning ( $\eta \neq 0, \beta \neq 0, \gamma \neq 0$ )