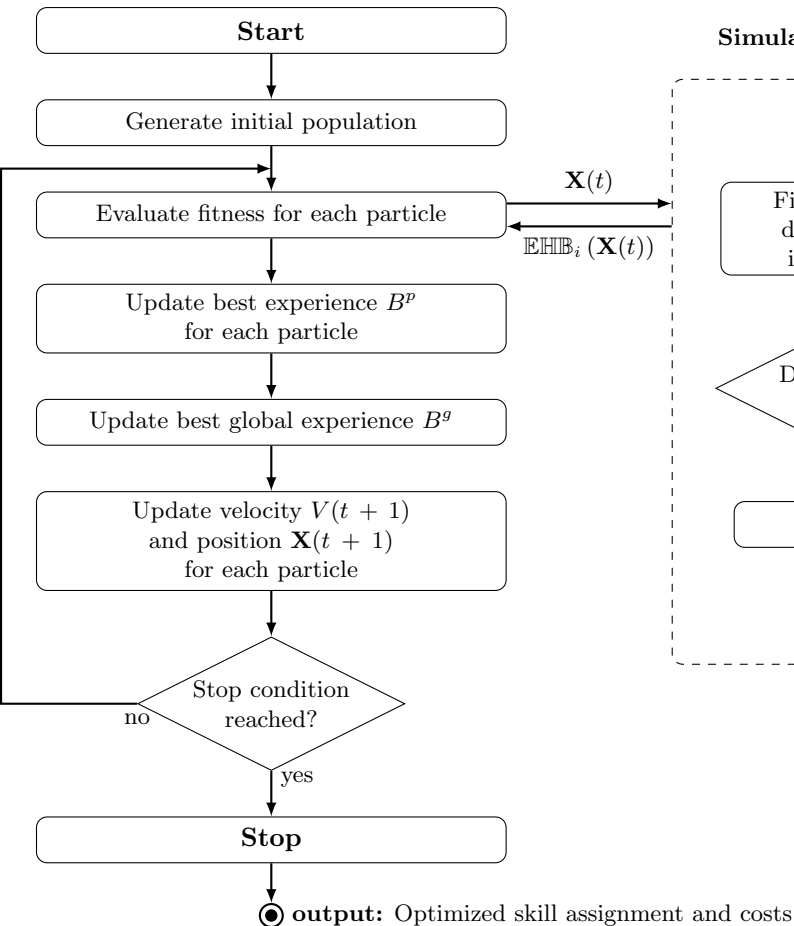**PSO procedure**

Simulation based evaluation of $\mathbb{EHB}_i(\mathbf{X}(t))$

Start

Generate initial population

Evaluate fitness for each particle

$\mathbf{X}(t)$

$\mathbb{EHB}_i(\mathbf{X}(t))$

Update best experience B^p for each particle

Update best global experience B^g

Update velocity $V(t+1)$ and position $\mathbf{X}(t+1)$ for each particle

Stop condition reached?

no

yes

Stop

output: Optimized skill assignment and costs

input: $\mathbf{X}(t)$

Find marginal distributions in database

DB

Distributions found?

no

Run simulation

yes

Optimize inventory levels

output: $\mathbb{EHB}_i(\mathbf{X}(t))$