

procedure SGA($f : \mathbb{X} \mapsto \mathbb{R}^+, ps, cr$) ▷ for maximization!

for $j \in 1 \dots ps$ **do** ▷ random initial population

 randomly sample $S_0[j].x$ from \mathbb{X} ; $S_0[j].y \leftarrow f(S_0[j].x)$;

for $i \in 0 \dots \infty$ **do** ▷ iterate “generations”

for $j \in 1 \dots ps$ **do** ▷ new pop. via mutation

$N_i[j].x \leftarrow \text{move}(S_i[\lfloor \mathfrak{R}_i^{ps} \rfloor].x)$;