

procedure SA($f : \mathbb{X} \mapsto \mathbb{R}, T_0, \varepsilon$)

randomly sample x_c from \mathbb{X} ; $y_c \leftarrow f(x_c)$;

$x_B \leftarrow x_c$; $y_B \leftarrow y_c$; \triangleright preserve best!

$\tau \leftarrow 0$; $\triangleright \tau$ is iteration counter

while \neg terminate **do**

$x_n \leftarrow \text{move}(x_c)$; $y_n \leftarrow f(x_n)$;

$\tau \leftarrow \tau + 1$;

$T \leftarrow T_0(1 - \varepsilon)^{\tau-1}$; $\triangleright T$ decreases over time

if $\mathfrak{R}_0^1 < e^{\frac{y_c - y_n}{T}}$ **then** \triangleright always true if $y_n \leq y_c$

$x_c \leftarrow x_n$; $y_c \leftarrow y_n$;

if $y_c < y_B$ **then** $x_B \leftarrow x_c$; $y_B \leftarrow y_c$;