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

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

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

$\tau \leftarrow 0$; ▷ τ is iteration counter

while ¬ terminate **do**

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

$\tau \leftarrow \tau + 1$;

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

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

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

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

return x_B, y_B