procedure $SA(f : X \mapsto \mathbb{R}, T_0, \varepsilon)$ randomly sample x_c from $X: y_c \leftarrow f(x_c)$:

if $\mathfrak{R}_{n}^{1} < e^{\mathbf{y_{c}-y_{n}}}$ then \triangleright always true if $y_{n} \leq y_{c}$

 $x_n \leftarrow move(x_c); y_n \leftarrow f(x_n);$

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

while
$$\neg$$
 terminate do
$$x_n \leftarrow move(x_n): y_n$$