Algorithm 1 最小二乘法求温度

Input: G: $Time, Temp$ ▷ 导入附件里的时间和温度

Output: P: [he hp T] ▷ 系数1 系数2 温度分布

1: **function** GETTEMPERATURE
2:     $He = [0, 200]$
3:     $Hp = [0, 10]$
4:     **for** each he in He step $= 0.5$ **do**
5:       **for** each hp in Hp step $= 0.005$ **do**
6:         **for** each t in $Time$ step $= 1$ **do**
7:           **for** each x in $Layer1$ **do**
8:             Calculate T(x, t) ▷ t时刻x位置处的温度
9:           **end for**
10:           **for** each x in $Layer2$ **do**
11:             Calculate T(x, t)
12:           **end for**
13:           **for** each x in $Layer3$ **do**
14:             Calculate T(x, t)
15:           **end for**
16:           **for** each x in $Layer4$ **do**
17:             Calculate T(x, t)
18:           **end for**
19:           Error $= \sum_{i=0}^{5400} \left(Temp(i) - T(end, i)\right)^2$ ▷ 误差
20:         **end for**
21:       **end for**
22:     **end for**
23:     Find the index of minimum Error ▷ 得到误差最小的索引
24:     P =[He(index) Hp(index) T(index)] ▷ 误差最小的he、hp和温度分布T
25:     **return** P
26: **end function**