**Procedure** Find-entropy (f) **returns** void

**input**: f, the pgm file path

**ouput**: a set of thresholds will be write to a file.

**global**: BEST\_CHROMOSOME to store the best result

save\_best\_obj threshold for BEST\_OBJECTIVE to save entropy list

read data from f;

**while** time out **or** BEST\_OBJECTIVE smaller than optimal value

**do**

calculate entropy for image and add to entropy list

selection, find out BEST\_CHROMOSOME and BEST\_OBJECTIVE

mutation

crossover

**if** BEST\_OBECJTIVE < save\_best\_obj **then**

write entropy list to file

**end if**

**end while**