软件工程上机

实验二

U201590021

软工1502郭子贤

**Introduction:**

In a box bounded by [-1, 1], given m balloons(they cannot overlap) with variable radius r and position mu. And some tiny blocks are in the box at given position {d};balloons cannot overlap with these blocks. find the optimal value of r and mu which maximizes sum r^2.

**Algorithm:**

该算法的主要思想是枚举。将计算精度设置为小数点。然后可能的位置的中心将是10000。计算每一个可能的位置和半径。找到其中最大的半径。将符合的圆放在链表或最大堆中。将半径按新圆圈排序。

**Test Results:**

|  |  |
| --- | --- |
| 输入 1 | 输出 1 |
| 1  1  0 0 | 1 -0.420 -0.420 0.580 0.336400  0.336400 |

|  |  |
| --- | --- |
| 输入 2 | 输出 2 |
| 4  1  0 0 | 1 -0.420 -0.420 0.580 0.336400  2 0.400 0.420 0.580 0.672684  3 0.570 -0.570 0.421 0.850093  4 -0.580 0.580 0.413 1.020662  1.020662 |

|  |  |
| --- | --- |
| 输入 3 | 输出 3 |
| 5  4  0.1 0.1  0.3 0.3  0.5 -0.1  -0.1 0.5 | 1 -0.360 -0.360 0.640 0.409600  2 0.590 0.590 0.410 0.577618  3 -0.620 0.620 0.374 0.717419  4 0.620 -0.620 0.374 0.857220  5 -0.030 0.760 0.232 0.911230  0.911230 |

|  |  |
| --- | --- |
| 输入 4 | 输出 4 |
| 2  4  0.1 0.1  0.3 0.3  0.5 -0.1  -0.1 0.5 | 1 -0.360 -0.360 0.640 0.409600  2 0.590 0.590 0.410 0.577618  0.577618 |

GitHub：https://github.com/Fish2333333/SEP