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Solving least-squares problems (II)

1分

This is a continuation of the last problem. This time, you are given the matrix A and the right-hand side vector b , and your goal is to compute the coefficients a and b in the least-squares solution vector $x = (a, b)$ so that $y(t) = a + tb$ is the best fit (in the 2-norm) to the given data.

Also use the function `plot_solution(a, b)` to visualize your result.

Use a QR factorization of A (from `scipy.linalg.qr` (<http://docs.scipy.org/doc/scipy/reference/generated/scipy.linalg.qr.html>)) to solve the least-squares problem $Ax \cong b$.

INPUT:

- System matrix A and right-hand side vector b
- Plotting function `plot_solution(a, b)`

OUTPUTS:

- `alpha`, `beta`

评分代码 [\(点击查看\)](#)

起始代码 [\(点击查看\)](#)

回答*

```
1 import scipy.linalg as la
2
3 alpha =
4 beta =
5
6 plot_solution(a, b)
```

按F9以打开/关闭全屏模式. 在 用户信息 (/profile/) 中设置编辑器模式.

保存回答

提交用于评分的回答

(您仍然可以在提交本问题后修改回答)