Geometric Intersection

Segment Intersection Reporting

- Brute-force

θ2-C-θ1

岳不群的长剑尽量不与对方兵刃相交，只是闪避游
斗，眼见他剑法虽然精奇，但单仗一个"巧"字，终
究非嵩山剑法堂堂之阵、正正之师的敌手。
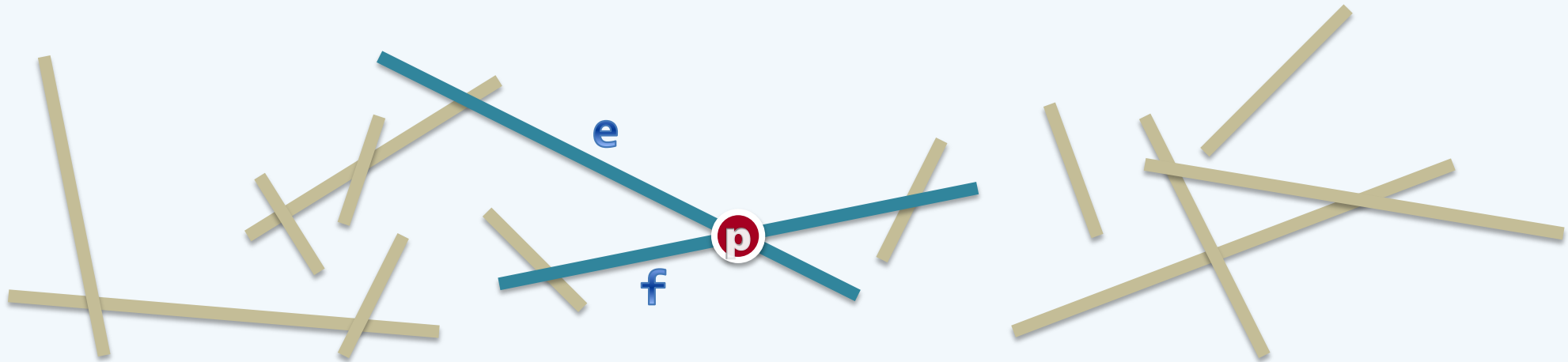
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❖ **Given n line segments in the plane,**

detect possible **intersection among them** **//** **SID**

identify all **pairs of intersecting segments //** **SIR**

e

f

p

❖ A simple naive algorithm solves SIR in $\boxed{\mathcal{O}(n^2)}$ time

❖ Again, can we solve $\boxed{\text{SIR}}$ faster, i.e., in $\boxed{o(n^2)}$ time?