Optimization Method & Optimal Guidance
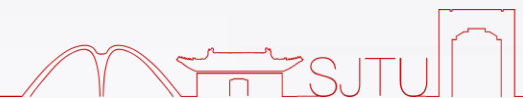
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Optimization Method & Optimal Guidance   Haichao Hong

Tell me your understanding of

"What is Guidance"

- Send to **haichao.hong@sjtu.edu.cn**
- Include "作业" and YOUR NAME in the subject line
- NO COPY PASTE

Convex Optimization with CVX and MOSEK

(Many) Optimization Toolboxes

- Rely on external solvers
- Automatic transcription takes time
- Easy to work with
- GPOPS, FALCON.m, CVX

Solvers/Optimizers

- Have rather fixed interface
- Manual transcription takes effort
- Hard to develop from scratch
- IPOPT, SNOPT, MOSEK

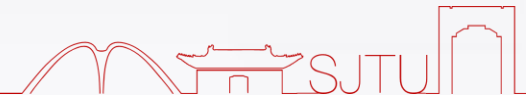Many of them have academic licenses

Why relying on toolboxes or solvers?

- Quick verification

- Intuitive

- Not really your job

- Likely to be more computationally efficient

MOSEK and CVX

1.Download and install

2.Request an academic license

3.Done

Install MOSEK in MATLAB and solve ANY convex QP problem

- Send to **haichao.hong@sjtu.edu.cn**
- Include "作业2" and YOUR NAME in the subject line