Optimal force application

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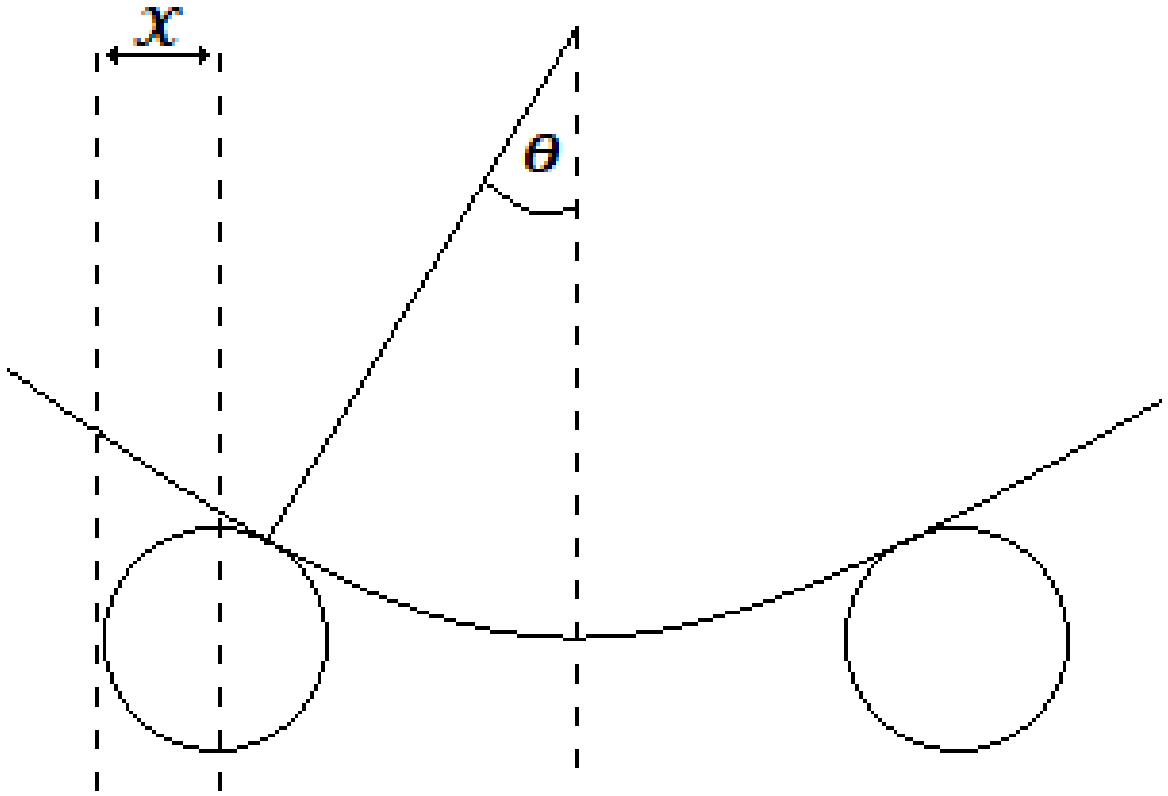
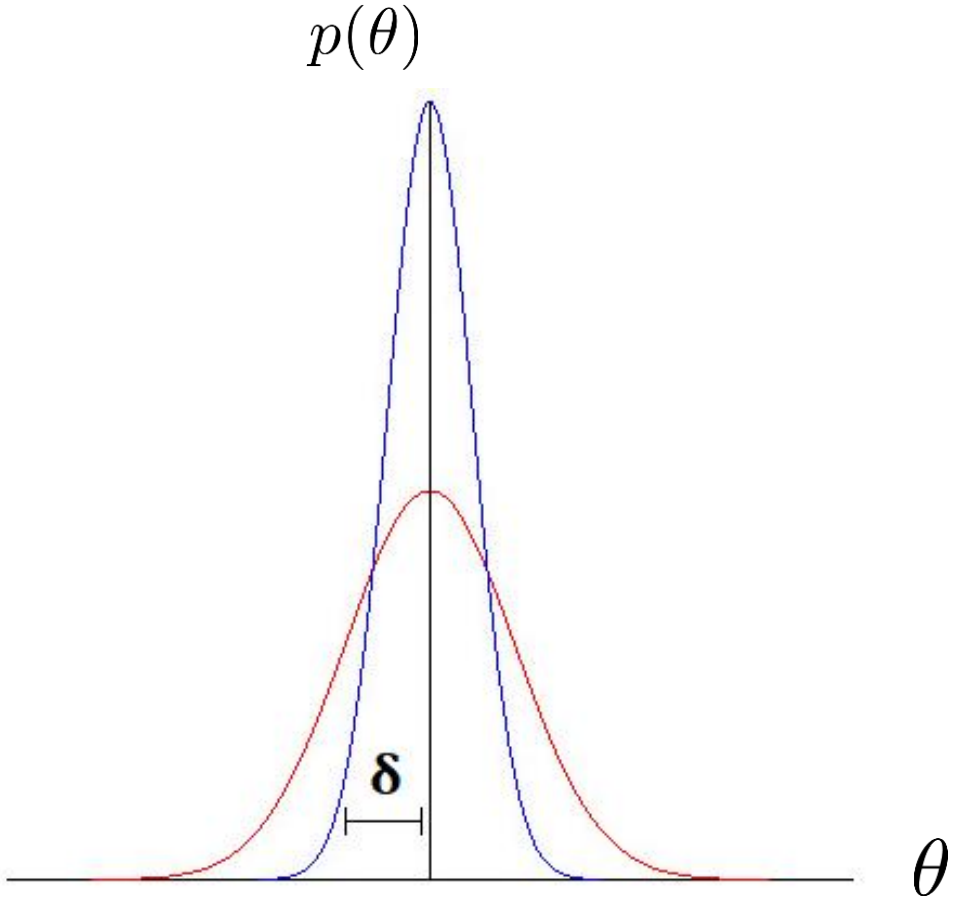


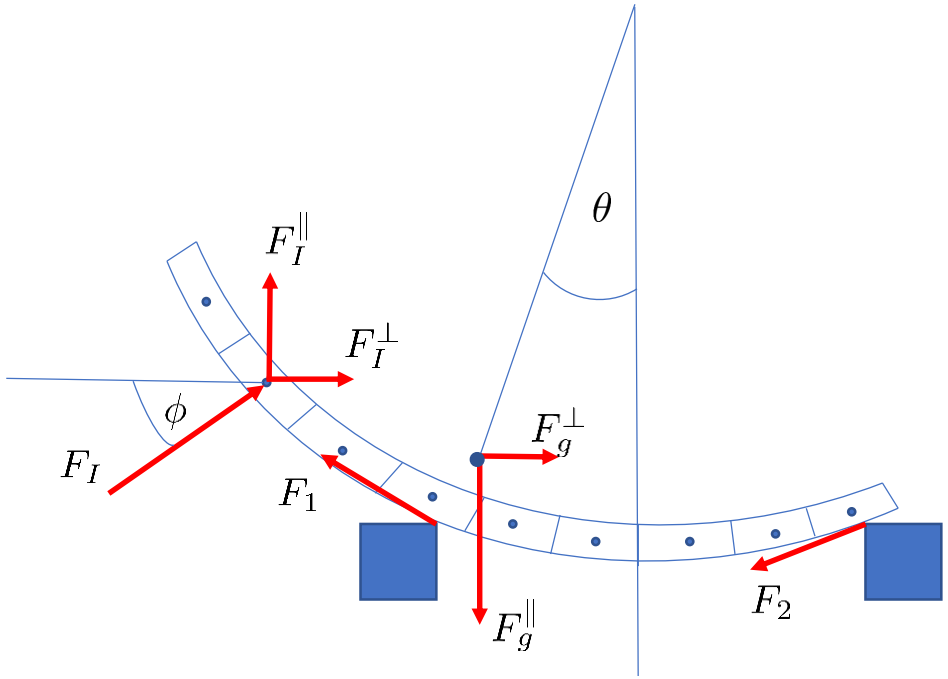


Given: Crisp-on-chains model

Goal: Reduce variance

Given: $\theta(\text{crisp angle}), F_I(\text{applied force}), F_1(\text{friction}), F_2(\text{friction})$

with:
$$\theta_{min} \leq \theta \leq \theta_{max}$$
$$F_{I,min} \leq F_I \leq F_{I,max}$$
$$F_{1,min} \leq F_1 \leq F_{1,max}$$
$$F_{2,min} \leq F_2 \leq F_{2,max}$$



Question: Where to apply external force optimally?

Approach: - determine the right mathematical framework
- simulate effect of applied forces
- test different scenarios