[Paper: Stochastic optimization of the daily operation of wind farm and pumped-hydro-storage plant (For China)](https://www.sciencedirect.com/science/article/pii/S0960148112003588?ref=pdf_download&fr=RR-2&rr=7fce0330b88252a1)

Idea: Coordinated operation of Wind Farm and Pumped Hydro Storage Plant based on day-head wind focus

MIP. Presented case study and sensitivity analysis. How hydropower can alleviate unpredictability of wind

A diagram of a wind farm

Description automatically generated

Now, day-ahead forecast still as large as 20-30%. Propose stochastic models based on chance constraint and scenario analysis

1. Chance based optimization

Instead of hard-on constraint, add confidence limit constraints as in below

1. Scenario-Based Optimization

Objective function changed to three scenarios

**Instead of hydro, we can easily use battery.**

**One idea: Battery is used to balance forecasting error coming from wind/solar.**