

SOVN

Project goal

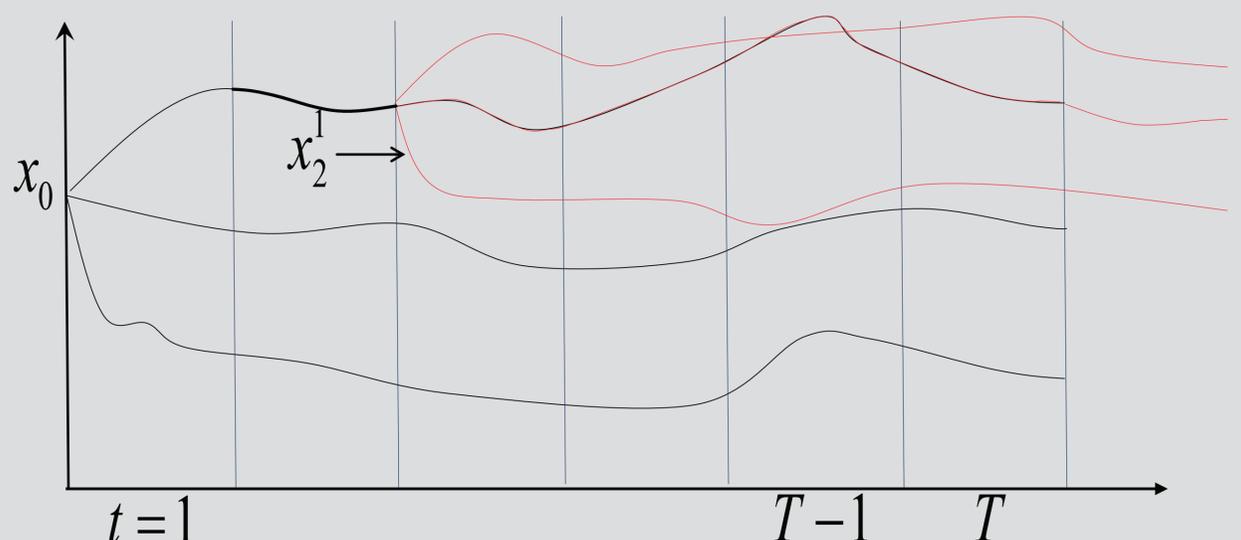
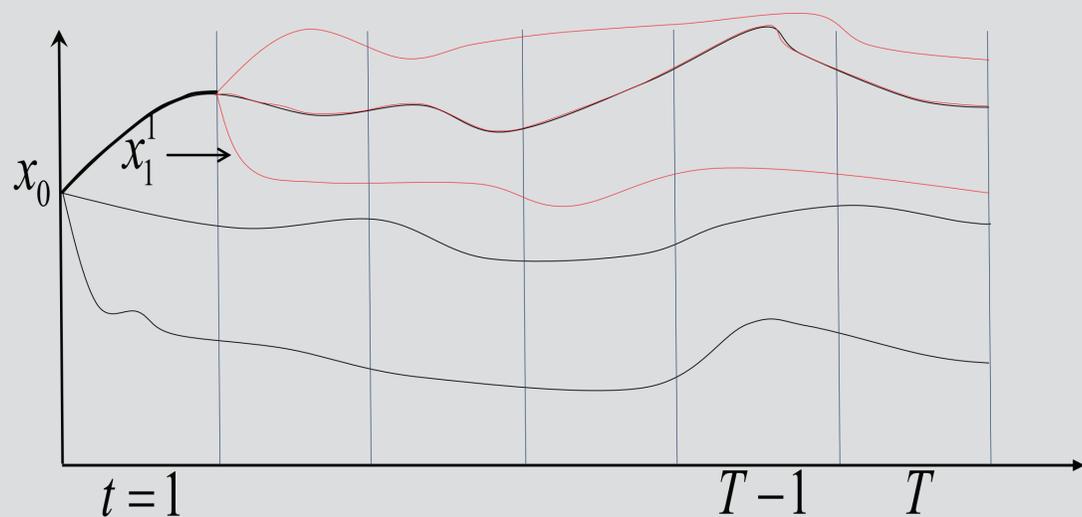
solve a multi-stage large-scale stochastic optimisation problem based on a detailed description of the hydropower system; a complete market model with detailed water values.

Simulator Scheme

- Two-stage stochastic problems
- Inflows known in the first-stage (week)
- All uncertainty is resolved in the second stage
- First-stage decision is implemented and state variables are updated
- Rolling horizon, fixed problem size

Benefits

- Direct use of historical "weather scenarios" in second-stage forecast
- Resembles operational planning practice
- Easy to build, extend and parallelize
- Efficient use of computational resources, large-scale parallel processing



Contact:

Geir Warland
Geir.Warland@sintef.no
Research Scientist