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## Optimal Reservoir Operation Using Stochastic Dynamic Programming

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### ABSTRACT

This paper focused on the applying stochastic dynamic programming (SDP) to reservoir operation. Based on the two stages decision procedure, we built an operation model for reservoir operation to derive operating rules. With a case study of the China' s Three Gorges Reservoir, long-term operating rules are obtained. Based on the derived operating rules, the reservoir is simulated with the inflow from 1882 to 2005, which the mean hydropower generation is 85.71 billion kWh. It is shown that the SDP works well in the reservoir operation.

### KEYWORDS

Reservoir Operation; Stochastic Dynamic Programming; Operating Rules

### Cite this paper

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