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Implementation of Back-Off Terms in the integration of Scheduling and Control with parameter uncertainty

The back-off methodology is used as an alternative to optimization problem formulations that due to complexity and scale would otherwise need a strong computational processing capability to be solved and may be intractable. A plant consisting of 2 dynamic chemical reaction and 2 static separation batch processes is modeled. Uncertainty in model parameters is implemented to measure its effects over the scheduling and control of the plant. Results may suggest a beneficial use in large-scale models