

Accepted Manuscript

Data-Driven Stochastic Robust Optimization: General Computational Framework and Algorithm Leveraging Machine Learning for Optimization under Uncertainty in the Big Data Era

Chao Ning , Fengqi You

PII: S0098-1354(17)30445-3
DOI: [10.1016/j.compchemeng.2017.12.015](https://doi.org/10.1016/j.compchemeng.2017.12.015)
Reference: CACE 5982



To appear in: *Computers and Chemical Engineering*

Received date: 3 October 2017
Revised date: 20 December 2017
Accepted date: 27 December 2017

Please cite this article as: Chao Ning , Fengqi You , Data-Driven Stochastic Robust Optimization: General Computational Framework and Algorithm Leveraging Machine Learning for Optimization under Uncertainty in the Big Data Era, *Computers and Chemical Engineering* (2017), doi: [10.1016/j.compchemeng.2017.12.015](https://doi.org/10.1016/j.compchemeng.2017.12.015)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Machine learning based uncertainty model is developed
- A data-driven optimization under uncertainty framework is proposed
- Labeled multi-class uncertainty data is leveraged for decision making
- The resulting problem is solved with a decomposition-based algorithm
- Applications to process network design and planning

Download English Version:

<https://daneshyari.com/en/article/6594929>

Download Persian Version:

<https://daneshyari.com/article/6594929>

[Daneshyari.com](https://daneshyari.com)