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Title: Rapid and Accurate Reachability Analysis for Nonlinear Dynamic Systems by Exploiting Model Redundancy

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PII: S0098-1354(17)30293-4

DOI: <http://dx.doi.org/doi:10.1016/j.compchemeng.2017.08.001>

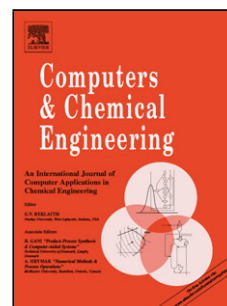
Reference: CACE 5868

To appear in: *Computers and Chemical Engineering*

Received date: 10-12-2016

Revised date: 27-7-2017

Accepted date: 3-8-2017



Please cite this article as: Kai Shen, Joseph K. Scott, Rapid and Accurate Reachability Analysis for Nonlinear Dynamic Systems by Exploiting Model Redundancy, *Computers and Chemical Engineering* (2017), <http://dx.doi.org/10.1016/j.compchemeng.2017.08.001>

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Highlights

- A method is presented for accurately bounding the reachable sets of ODEs
- The key idea is to augment ODEs with redundant state variables that satisfy solution invariants by construction
- Algorithms are developed for exploiting invariants within fast interval bounding methods
- Case studies show that redundancy can significantly improve accuracy at modest additional cost

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