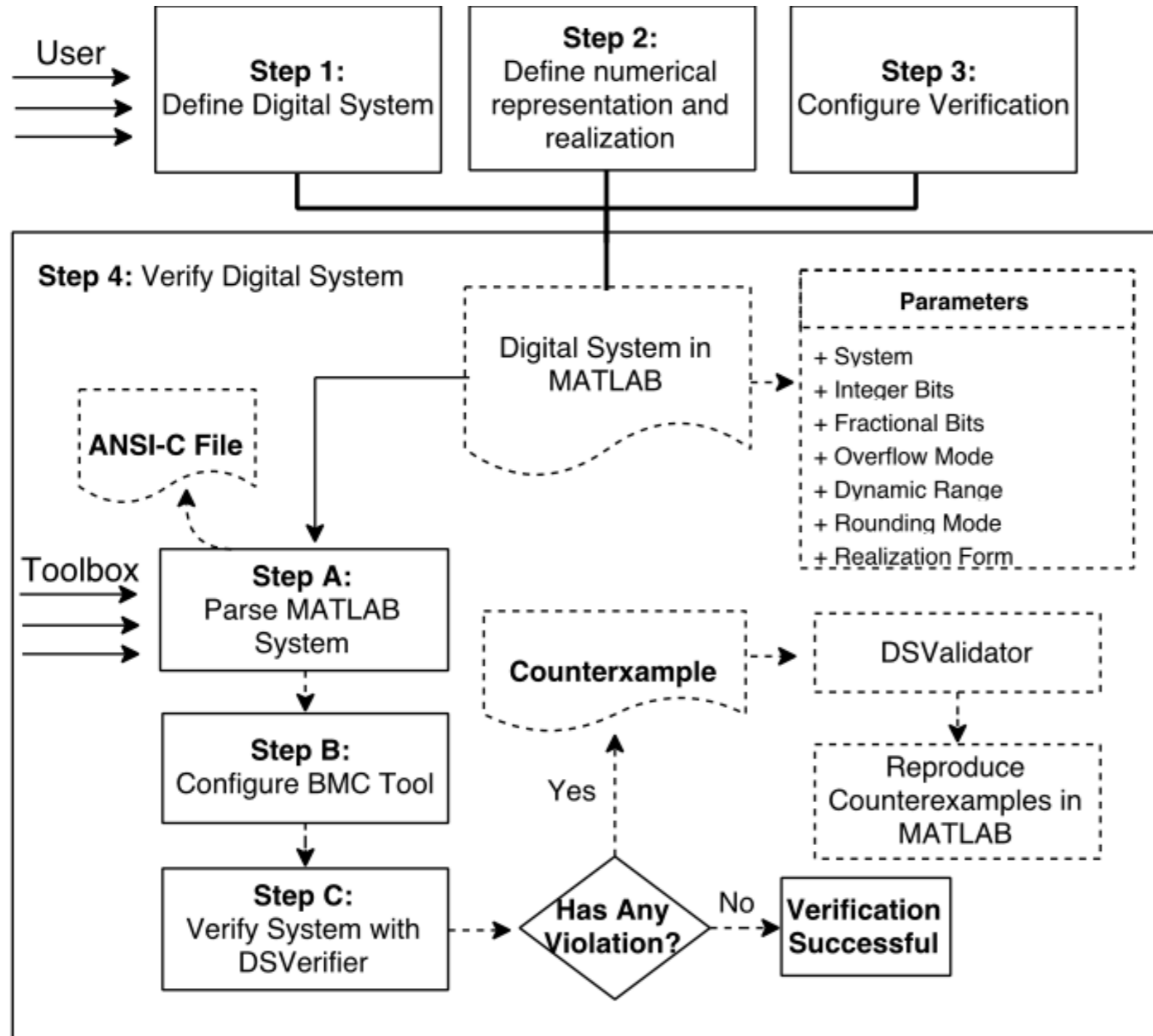# Verifying Digital Systems with MATLAB

Joint work with Lennon Chaves, Iury Bessa,
Daniel Kroening and Eddie Lima

Lucas Cordeiro
University of Oxford / DiffBlue
lucas.cordeiro@cs.ox.ac.uk

diffblue

AI for Code

DSVerifier Toolbox: BMC tool to check design errors in digital systems with MATLAB
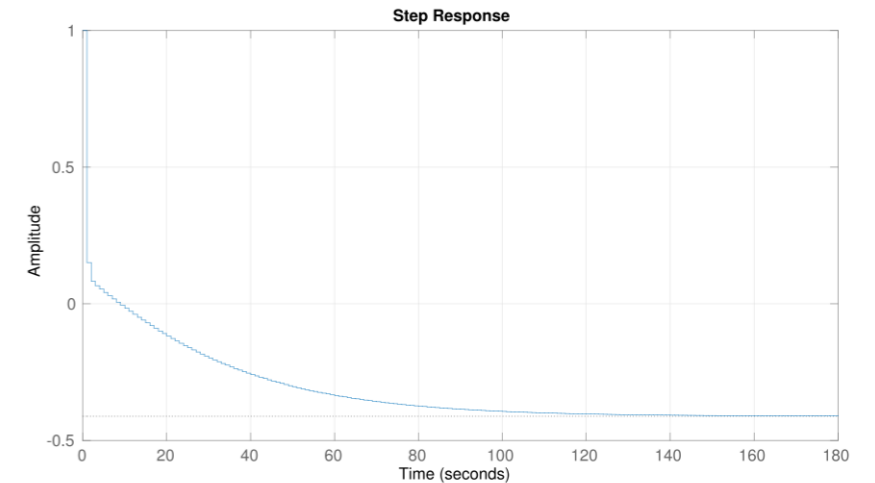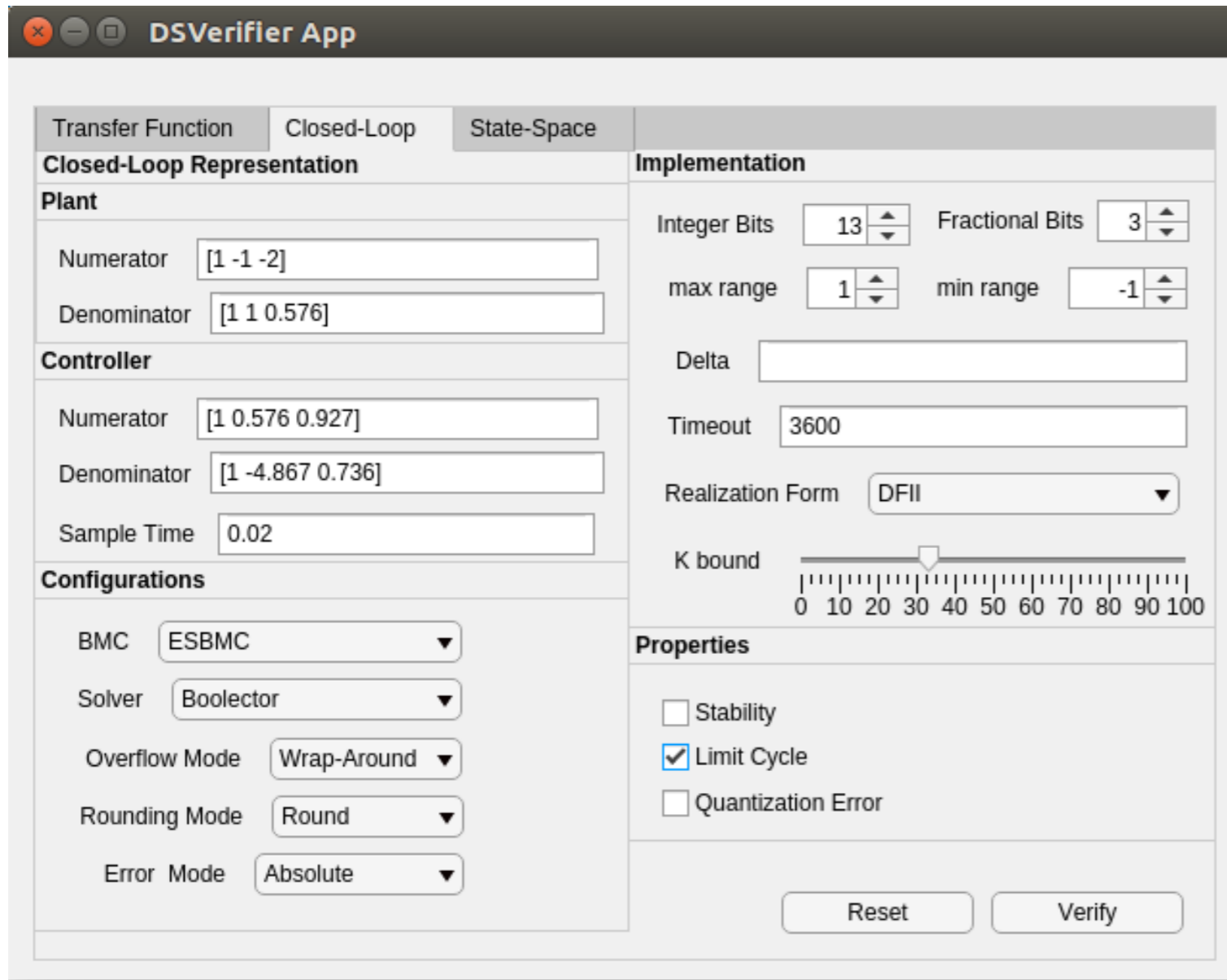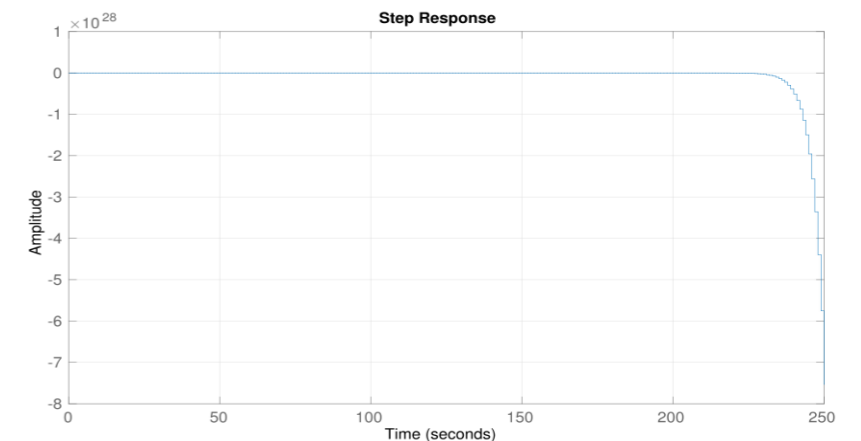
DSVerifier Toolbox: Illustrative Example

- The different **numerical representations** for a given digital system can yield different **verification results**

successful verification: **stable** system using <2,13>

failed verification: **unstable** system using <13,2>