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Youdong Lin* (ylin@nd.edu) and **Mark A Stadtherr** (markst@nd.edu). *Deterministic Global Optimization for Dynamic Systems.*

A methodology is presented for the deterministic solution of global optimization problems involving dynamic systems. A key feature of the method is the use of a new validated solver for parametric ODEs, which is used to produce guaranteed bounds on the solutions of dynamic systems with interval-valued parameters. The effectiveness of the method is demonstrated using several example problems. (Received February 02, 2006)