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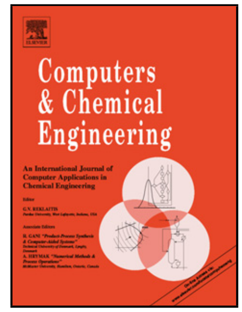

Title: APT-MCMC, a C++/Python implementation of Markov Chain Monte Carlo for Parameter Identification

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2. Highlights

- Issues encountered with the ODE inverse problem is modulated by the use of Markov Chain Monte Carlo techniques: parallel tempering and affine invariant ensemble of samplers
- APT-MCMC is a free software package designed to solve such problems via easy implementation of simulations (setup in Python) and fast runtime (generates a compiled C++/OpenMP executable) [available at `https://gitlab.com/liangzha/APT-MCMC`]
- Optimization benchmarks were used to verify APT-MCMC performance and to develop hyperparameter heuristics to improve simulation efficiency