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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

- 5 • 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
10 (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

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